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ASIMOV

JUNE

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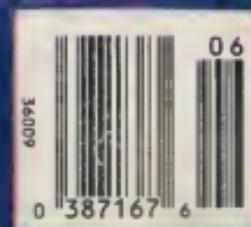
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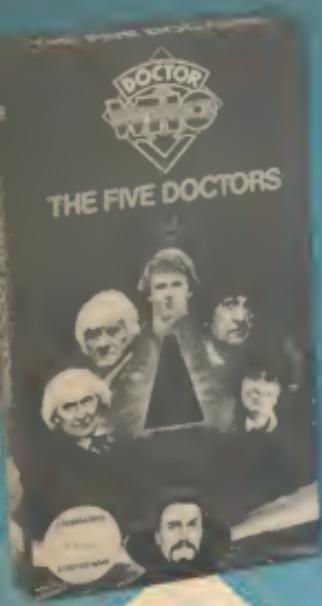
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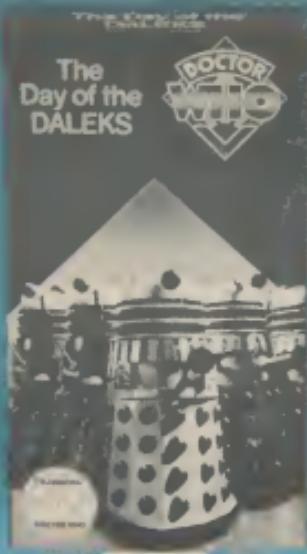
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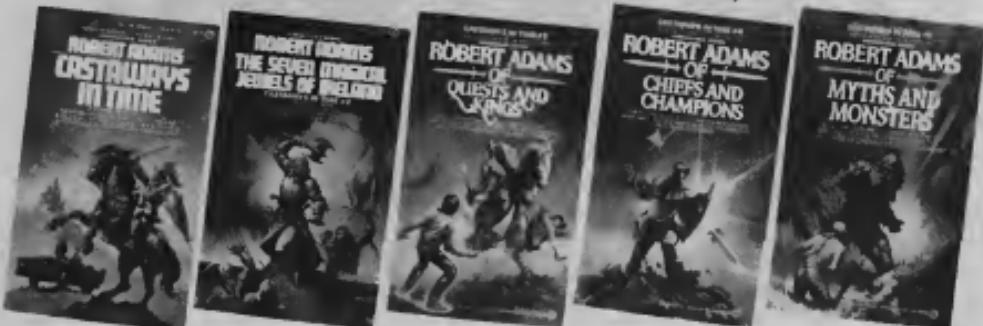
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EDITORIAL

PLOTTING

by Isaac Asimov

Every once in a while, an article about me appears in a newspaper, usually in the form of an interview. I don't go looking for these things, because I hate the hassle of being photographed (which, these days, invariably goes with interviews) and I hate the risk of being misquoted or misinterpreted.

Nevertheless, I can't always turn these things down because I'm not really a misanthrope, and because I do like to talk about myself. (Oh, you noticed?)

As a result of one such interview, an article about me appeared in the *Miami Herald* of 20 August, 1988. It was a long article and quite favorable (the headline read "The Amazing Asimov") and it had very few inaccuracies in it. It did quote me, to be sure, as saying that my book *The Sensuous Dirty Old Man* was "nauseating." That is wrong. I said that the books it satirized, *The Sensuous Woman* and *The Sensuous Man*, were nauseating. My book was funny.

It also quoted me as saying that I considered "Nightfall" to be my best story. I don't, not by a long shot. I said it was my "best-known" story, a different thing altogether.

Usually any reporter who interviews me is willing to let it go at that, but the *Miami Herald* reporter was more enterprising. She asked questions of my dear wife, Janet, and of my brother, Stan, who's a vice-president at the *Long Island Newsday*. Both said nice things, but then they both like me.

However, she also consulted someone who teaches a course in science fiction at Rutgers University. Her name is Julia Sullivan, and I don't think I know her, though it is clear from what she is quoted as saying that she is a woman of luminous intelligence and impeccable taste.

She praised my clarity and wit, for instance, but I'm used to that. The thing is, she is also quoted as saying about me that "he surprises me. Sometimes I think he's written himself out, and then he comes up with something really good. . . . He has the greatest mind for plot of any science fiction writer."

That's nice!

I can't recall anyone praising me for my plots before, and so, of course, it got me to thinking about the whole process of plotting.

A plot is an outline of the events



of a story. You might say, for instance, "There's this prince, see? His father has recently died and his mother has married his uncle, who becomes the new king. This upsets the prince who hoped to be king himself and who doesn't like the uncle anyway. Then he hears that the ghost of his dead father has been seen—"

The first thing you have to understand is that a plot is not a story, any more than a skeleton is a living animal. It's simply a guide to the writer, in the same way that a skeleton is a guide to a paleontologist as to what a long-extinct animal must have looked like. The paleontologist has to fill in the organs, muscles, skin, etc. all around the skeleton, and that's not feasible except for a trained person. Hence, if you give the plot of *Hamlet* to a non-writer, that will *not* help him produce *Hamlet* or anything even readable.

Well, then, how do you go about building a story around the plot?

1) You can, if you wish, make the plot so detailed and so complex that you don't have to do much in the way of "building." Events follow one another in rapid succession and the reader (or viewer) is hurried from one suspense-filled situation to another. You get this at a low level in comic strips and in the old movie serials of the silent days. This is recognized as being suitable mainly for children, who don't mind being rushed along without regard for logic or realism or any form of subtlety. In fact children are apt to

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be annoyed with anything that impedes the bare bones of the plot, so that a few minutes of love interest is denounced as "mush." Of course, if it is done well enough, you have something like *Raiders of the Lost Ark*, which I enjoyed tremendously, even if there were parts that made no sense at all.

2) You can go to the other extreme, if you wish, and virtually eliminate the plot. There need be no sense of connected events. You might simply have a series of vignettes as in Woody Allen's *Radio Days*. Or you might tell a story that is designed merely to create a mood or evoke an emotion or illuminate a facet of the human condition. This, too, is not for everyone, although, done well, it is satisfying to the sophisticated end of the reader (or viewer) spectrum. The less-sophisticated may complain that the story is not a story and ask "But what does it *mean*?" or "What happened?" The plotless story is rather like free verse, or abstract art, or atonal music. Something is given up that most people imagine to be inseparable from the art-form, but which, if done well (and my goodness, is it hard to do it well), transcends the form and gives enormous satisfaction to those who can follow the writer into the more rarefied realms of the art.

3) What pleases the great middle—people who are not children or semi-literate adults, but who are not cultivated esthetes, either—are stories that have distinct plots, plots that are filled-out success-

fully, one way or another, with non-plot elements of various types. I'll mention a few.

3a) You can use the plot as a way of bringing in humor or satire. Read books by P. G. Wodehouse, or Mark Twain's *Tom Sawyer*, or Charles Dickens' *Nicholas Nickleby*.

3b) You can use the plot to develop an insight into the characters of the individuals who people the story. The great literary giants, such as Homer, Shakespeare, Goethe, Tolstoy, Dostoevski, do this supremely well. Since human beings and their relationships with each other and with the universe are far more complex and unpredictable than are simple events, the ability to deal with "characterization" successfully is often used as a way of defining "great literature."

3c) You can use the plot to develop ideas. The individuals who people the story may champion alternate views of life and the universe, and the struggle may be one in which each side tries to persuade or force the other into adopting its own world-view. To do this properly, each side must present its view (ostensibly to each other, but really to the reader) and the reader must be enticed into favoring one side or another so that he can feel suspense over which side will win. Done perfectly, the two opposing views should represent not white and black, but two grays of slightly different shades so that the reader cannot make a clear-cut decision.

Celebrate

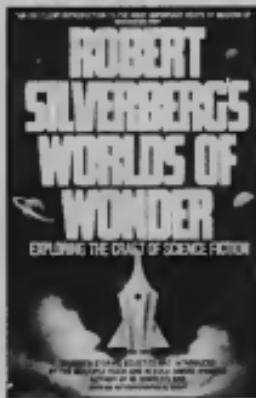
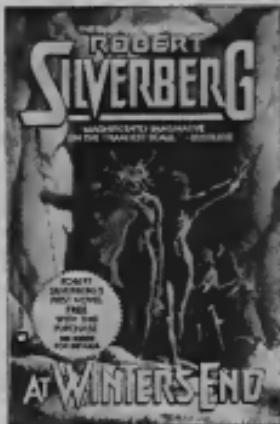
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but must *think* and come to conclusions of his own. I go into greater detail on this version than on the other two, because this is what *I* do.

There are many other ways of dealing with plot, but the important thing to remember is that they are not necessarily mutually exclusive. A humorous novel can be full of quite serious ideas and develop interesting characters, for instance.

On the other hand, writers can, more or less deliberately, sacrifice some elements of plot build-ups in their anxiety to do, *in great detail*, what it is they want to do. I am so intent on presenting my opposing ideas, for instance, that I make no serious attempt to characterize brilliantly or to drench the tale in humor. As a result, much is made of my "cardboard characters" and I am frequently accused of being "talky." But these accusations usually come from critics who don't see (or perhaps lack the intelligence to see) what it is that I am trying to do.

But I'm sure that this is not what Ms. Sullivan meant when she said I had "the greatest mind for plot."

I rather think she means that my stories (especially my novels) have very complicated plots that hang together and have no loose ends, that don't get in the way of the

ideas I present in my stories, and that are not obscured by those ideas, either.

Now, how is that done?

I wish I could tell you. All I'm aware of is that it takes a great deal of hard thinking, and that between the thinking and the writing that I must do, there is little time for me to do anything else. Fortunately, I both think and write very quickly and with almost no dithering, so I can get a great deal done.

Which brings me to another part of the interview. The reporter speaks of my apartment as "filled with eclectic, utilitarian furniture chosen more for comfort than for style, much like Asimov's wardrobe. For a recent speaking engagement, he wore a Western tie, a too-big jacket, and a striped shirt with the kind of long wide collar that was popular in the 1970s."

She's absolutely right. As far as style is concerned, I'm a shambles. It doesn't bother me, though. To learn to live and dress with full attention to style would require hours upon umpteen hours of thought, of education, of decision-making, and so on. And that takes time I don't want to subtract from my writing.

What would *you* rather have? Asimov, the prolific writer, or Asimov, the fashion-plate? I warn you. You can't have them both. ●



LETTERS

Dear Ms. Guth,

I have been a reader and fan of *IAsfm* for a number of years. Recently I took out a new subscription (I had one several years ago). Because this letter is in regard to that new subscription I have enclosed the mailing label from the first issue I received, for your reference.

When I received my first issue, July 1988, it was both torn and tattered. Its outer appearance made it seem more than likely that a few postal employees had thumbed through the magazine while it made its way to my house. I was undeterred by this, since tattered edges don't change the substance of the words inside. Besides, it made me feel at home; most of the issues I've borrowed over the years have been well read hand-me-downs. I told my very concerned wife not to worry, and explained that plastic wrappers and the like would add to the cost of a subscription.

Today I received my second issue. To the dismay of my wife, this magazine was in worse condition than the first. It looked very old and worn. She insisted that I write a letter of complaint. I argued that if there was anybody that I should complain to, it would be the post master. We went round and round, raising a number of points on both sides of the issue. Finally we de-

cided that it really wasn't that big a deal. I wouldn't write a letter to anybody.

You're probably wondering why I am writing to tell you that I decided not to write to you. Most people would consider such behavior to be a little bit on the far side of strange. Normally I don't do things that are quite this peculiar so please, let me explain.

While reading the Letters section of my second issue, I noticed that it took you (*IAsfm*) an abnormally long time to respond to your mail. Most of the letters were in regard to issues dated in late 1986. This seemed odd, since I never observed this trait in your publication before. And then I became suspicious. Maybe it was possible that I was in error. Slowly, I turned back to the front cover, knowing that there my fears would be put to rest. But alas, there it was. My wife was right; the issue date was August 1987. The magazine was a year old. No longer on firm ground, I was forced to succumb to the wishes of my wife.

So I'm writing to tell you that I have in my possession a magazine that has been through some sort of bizarre postal time warp. If the dates are correct, it was sent to me a year before I subscribed and still managed to be delivered a year

late. It seems appropriate that it is a science fiction magazine.

Unfortunate as this may seem, I've read most back issues of *IAsfm*. If the remainder of my subscription is being routed via our little time warp, I must regretfully ask for a refund. Hopefully though, you'll be pleased to inform me that the warp is gone and that future issues will be delivered through normal channels.

Sincerely,

Roy D. Lenza
Kulpmont, PA

The trouble with time warps is that there are usually alternate explanations that are far less interesting. A number of year-old magazines somehow managed to get mailed out when we thought we were mailing the current number. However, the old magazine happened to be a particularly good issue, and the correct issue was then also sent out so that readers end up with a useful bonus.

—Isaac Asimov

Dear Mr. Dozois,

Is it possible that someone outside your office may read manuscripts going through it?

The reason I ask is this: In August of last year I submitted a short story to your magazine titled "Poor Zombie," in which the protagonist belonged to an organization I called "the Zombie Corps." I invented the name (originally I was going to call it "the Zombie Battalion"), and I never mentioned it to anyone. You were the only one I submitted the story to. Now, less than a year later, I see a book, *Writers of the*

Future, Volume IV with a short story by Rayson Lorrey, copyright 1988, titled "The Zombie Corps: Nine-Lives Charlie." Outside of the words "Zombie Corps" the story bears no resemblance to mine.

This may only be a coincidence. If you assure me that it is, I will take your word for it.

This letter is prompted only out of curiosity. I have no ambition to be known as the creator of "the Zombie Corps."

Sincerely yours,

Gary Eckenrode
Beavercreek, OH

I wouldn't be surprised if a look through the annals of horror literature turned up a dozen examples of "Zombie Corps." I doubt if there's any two-word combination in the English language that hasn't been used many, many times.

—Isaac Asimov

Dear Dr. Asimov,

Today I received my October issue of *IAsfm*. As always, the first item I read was Letters. These are almost more exciting and/or interesting than the stories. I do not like, nor particularly enjoy every story you publish, but then it would be a dull world if I did. I have been reading science fiction since I was a teenager, your works included. (I won't tell how long that has been, but my son is now twenty and married.) I am a writer, unpublished as yet, and your *Foundation Trilogy* has been and continues to be an inspiration to me.

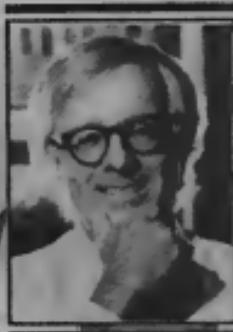
I would like to take exception to one statement that you made in

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THE TOYNBEE CONVECTOR

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answer to one of the letters. You said, ". . . I consider the group that is most active in attempting to censor books (and everything else) are the religious fundamentalists. They're the ones the schoolboards and librarians are scared of." Not all "religious fundamentalists" believe in such censorship. I know this for a fact, as I am a "religious fundamentalist." I read and believe the Bible, and I am a practicing Christian. But the last time I looked, there was nothing in my Bible that said this world, and its inhabitants were the only intelligent life that God created. The God that created our universe, the universe that includes everything that our astronomers "discover" each year, would hardly limit his creations to just one minuscule planet.

Please, do not make the mistake of assuming that all "religious fundamentalists" are the same. To paraphrase your own editorial: It seems to me that you place all "fundamentalists" in the same box, and suspect us all of being unstable. "Well, it's not so, and I don't want it to be thought so."

Keep on keepin' on with all your writing, whatever the genre. We, the readers of the world, need more of it.

Sincerely,

Jo Lynn Chandler
(Mrs. Robert R. Chandler)
Garland, TX

There are exceptions to everything, I know. However, it isn't enough to say, "Not all A's are B's. I'm an A but I'm not a B." Ought we therefore to forgive all B's for the sake of the occasional A who isn't one? Are you simply content not to

be a "censor" or would you rather fight it actively as a great evil? Remember that all that is required for the victory of evil is for good people to do nothing.

—Isaac Asimov

Dear Dr. Asimov,

I recently started reading *Asimov's* again after my father's subscription ran out a couple of years ago (lack of time, he claimed) and it took some time before I thought of getting my own. The magazine is still as great as ever, but what happened to the Viewpoints? They were consistently informative, thought provoking, and entertaining, as well as providing some contrast from the fiction.

Your recent attack on quack psychology will cause reprisals, maybe even from your wife, but I support you, even though I once wanted to be a psychologist. A report recently came out here saying society is, believe it or not, more interested in dinner than sex. The claim was based on a psychologist's studies of prime time television, and the fact that more plotlines dealt with dinner than sex. A better interpretation is that censors would like society to be more interested in dinner than disgusting animal rites.

"The Great Martian Railroad Race" also struck a chord with me, and made me wonder if railroads could have a second heyday on Mars. It seemed to be inspired by the colonization of the West, which would be the closest historical parallel. Trains still do well in densely populated Europe and Japan, but they are on their way out in North America. What could be more

sparingly populated than Mars before the colonists arrive in droves? Also, trains got their start in the absence of cars, and especially trucks, so the chances for trains being built on Mars are extremely slim. Readers are probably thinking, "Who cares?" and they're right. We don't see enough stories involving the relatively near future in space, because of NASA making it old hat.

Keep up the good work,

Rob Reid
Dorval, Quebec
CANADA

Possibly you're thinking of trains of the old "iron horse" type. What about "mag-lev" trains, those using magnetic levitation to avoid contact with the rails? You wipe out friction almost entirely. The Martian surface gravity is only 0.4 that of Earth, but magnetic repulsion is just as strong. Anyone who wants to can use that as a background for a Mars-story—or has it been done already while I wasn't looking?

—Isaac Asimov

Dear Dr. Asimov (or whoever, I don't think you actually read these yourself):

Just received my September copy and naturally read the letters second. (The editorial first, of course). I hate to be swimming upstream but personally, although I am a great fan of Mr. Ellison and an even greater one of yourself (*I, Robot* was my first Asimov), I found the script extremely hard to read and very frustrating. I'm sure I'd be the first in line to see the movie if it ever gets made, but perhaps

I'm just not cut out for reading movie scripts. I am writing this letter because I felt that perhaps we needed a little balance here, as all you printed were rave reviews. Otherwise keep up the good work, I'll write a longer letter later (I'll bet you really need those). Right now I must get back to reading the mag.

Cordially,

Donald L. Parson
Baudette, MN

Yes, I do read the letters myself. You don't suppose that someone forges my name to the answers, do you? We printed rave reviews for the Ellison script because that's what we received. And now we print yours. No opinion of any kind is ever held unanimously.

—Isaac Asimov

Dr. Isaac Asimov,

I just finished your editorial in the Sept. '88 issue of *IAsfm*, and your views about horses versus autots.

Yes horses do sweat but they do not necessarily smell any different from humans. Actually they have no more noticeable body odor than a cat or dog.

As for their manure, yes that does have an odor and is rather unsightly but much less so than most animals'. The fly situation could be controlled by supplements added to the feed which would kill both adult flies and their larvae.

All in all I would take the smell of animals over auto or industry any day. At least it doesn't cause cancer, etc.

I look forward to your future fic-

tion, having just finished *Prelude to Foundation*, along with every other piece of your writing I can find.

David Kveragas
Mngr. High Winds Stables
1943 Timberlane
Clarks Summit PA 18411

I don't dislike horses, but (and this may be purely subjective) I think they smell much worse than cats. As for the horse manure, it may not cause cancer, but it was instrumental in spreading various contagious diseases. And if you replaced automobiles by horses, where would you get the hay to feed them all? You would have to choose between acreage devoted to grass for horses, and acreage devoted to grain for human beings. Sorry, I don't think we can go backward.

—Isaac Asimov

Dear Mr. Dozois:

Having finally got around to reading most of this year's issues to date, I thought I would write you a letter about some of the stories. As usual, your magazine prints the most intriguing stories of any of the SF magazines. This year I have been particularly moved by one story, "The Last of the Winnebagos" by Connie Willis, which appeared in the July issue. Ms. Willis has written some of my favorite stories of the last several years, especially "Fire Watch," "Spice Pogrom," and "Winter's Tale" in *IASfm*. Her range of themes and moods is very impressive. But of all her stories, this one moved me the most. I suppose perhaps that as a dog owner I am more vulnerable

than some to the emotions this tale induces, but she made me feel that the sense of loss, love, and guilt that her protagonist feels were my own. I think that the ability to do that is the surest hallmark of the best writers. For me, this is easily the best story of the year so far. Very few pieces these days make me stop and think, like this one, and even fewer bring tears. I know you need little encouragement to try to obtain more of Ms. Willis' stories, but please continue to feature her as often as possible.

I was somewhat disappointed by the James Tiptree story in the May issue, "The Earth Doth Like a Snake Renew." I happened to reread Tiptree's early short story "The Last Flight of Doctor Ain" right after reading "The Earth Is . . ." I was struck by the similarity of the themes of the two tales. However, the earlier story was infinitely subtler, and far more moving. Perhaps Ms. Sheldon felt likewise, and withheld the story for that reason.

Finally, Neal Barrett's "Stairs" (September) was also wonderful. What a beautifully written piece! If it wasn't the best short story you have published this year, then it was the best poetry. Indeed, September was a marvelous issue, as "The Scalehunter's Beautiful Daughter" and "Glacier" are also very fine stories.

Of the authors you feature regularly, I am most impressed with the above mentioned Ms. Willis, and with Kim Stanley Robinson, James Patrick Kelly, John Kessel, Bruce Sterling, and Neal Barrett, Jr. I think Alexander Jablokov is the best of the recent new writers

you have published. Also, please encourage Norman Spinrad to write more of his excellent critical essays. For my money, I would far rather read the sort of involved criticism that a Spinrad or a Budyrs writes than the "shopping lists" of Baird Searles and Thomas Easton. I am sure that this view is not universally held by your readers, so I suppose that your current scheme of alternating between the

two is a good compromise. However, I feel that I learn more about the books considered, as well as about writing, from the essay approach.

At any rate, thanks for publishing an excellent magazine.

Rich Horton
Richmond Heights, MO

A thoughtful letter. Thank you.
—Isaac Asimov

AN ENGINEER OF THE INFINITE

"The most beautiful thing we can experience is the mysterious."

Albert Einstein

Isolated in the stark laboratory glare,
in circles of distilled illumination,
the nighthawking scientist will stare
from a wall of glass and rumination
at cityscapes of vague architecture.
Only first magnitude stars can be seen.
Even boats along the East River shore
become smudges of red and pallid green.
For a brief moment, fixed on nowhere,
his thoughts turn formless, blunt, packed
with air and fatigue poisons that wear
thin; but he knows he's paring away at fact,
reducing ignorance to the barest essential
of what's explicable—or isn't at all.

—Robert Frazier

NEAT STUFF

by Matthew J.
Costello

My problem with computer games of every kind has been that, once the novelty wears off, whenever the graphic stunts become commonplace, the games soon become inferior entertainment.

And, for a while, I believed that this state of affairs would remain unchanged, at least until the long-awaited debut of CD-I—the interactive laserdisc, bringing realistic, interactive action only hinted at by the 80's best adventure games.

But three new games, while not making the leap to a brand new technology, have pushed the limits of what we can, and should, expect from a computer game. They are exciting, witty, and entertaining in ways that make them a new generation of computer games. CD-I may (or may not) be around the corner. But these games are each major breakthroughs.

Lucasfilm Games (PO Box 10307, San Rafael, CA 94912) has been justly acclaimed for *Maniac Mansion* and *Zak McKracken and the Alien Mindbenders*, but *Battlehawks 1942* is something completely different. The goal was to create a simulation of the air war in the Pacific, focusing on major confrontations like Midway and Coral Sea.

The game is breathtaking, and an instant classic. The action commences in the air, focusing on flying missions and not take-off and landing. You can fly a variety of missions based on the actual battles, including dive bombing, torpedo bombing, and fighter escort.

The controls for your plane, such as a Dauntless, are complete on two pages. But *Battlehawks 1942* comes with a hefty, handsome rule book in the style of a pilot's log. There is background on all the planes to be flown, the Pacific War, and techniques on flying the assorted missions. Commentary is provided by Lieutenant Commander Richard H. Best.

The graphics, for the most part, are excellent. You don't see sprites or thin line realizations of airplanes, but real planes, catching flak, and carriers burning on the Pacific. (The blue American planes can get lost against the sea.) You can choose to fly American or Japanese missions, a unique and humane opportunity to try things from both combatants' points of view. A marvelous camera option captures the action at any point you wish and you can watch the replay from different viewpoints. Unlike games where you have to

digest a mammoth rulebook to play, you can jump in, fly the mission, and then go back to study just what you're doing wrong.

Infocom (125 Cambridge Park Drive, Cambridge, MA 02140), renowned for its text adventures like *Zork*, is releasing a line of graphic games that they hope to become the industry standard. The first release, *Battletech*, is no disappointment.

Subtitled "The Crescent Hawk's Inception," *Battletech* leads you through a grand futuristic role-playing adventure where 'Mechs (giant, armored robots) fight in the thirty-first century. The screen is divided into three areas, a main screen for exploring the map of your current location, a smaller graphics/text box for battle information and local color, and an all text box giving optional, and information.

Again, the game does not demand that you absorb a thick rule book. Instead, the adventure leads you through a series of training missions (and plot sequences) teaching you about the 'Mechs and getting you ready for the more advanced challenges in the game. New commands are introduced as you're ready for them, and the adventure can take you from your first blundering around in a practice 'Mech to leading a battalion of armed warriors against the Kurita warriors.

Created by Westwood Associates, *Battletech* makes good on Infocom's promise to mesh the best

of text role-playing games with graphics. It's a definite contender for Best Game of the Year.

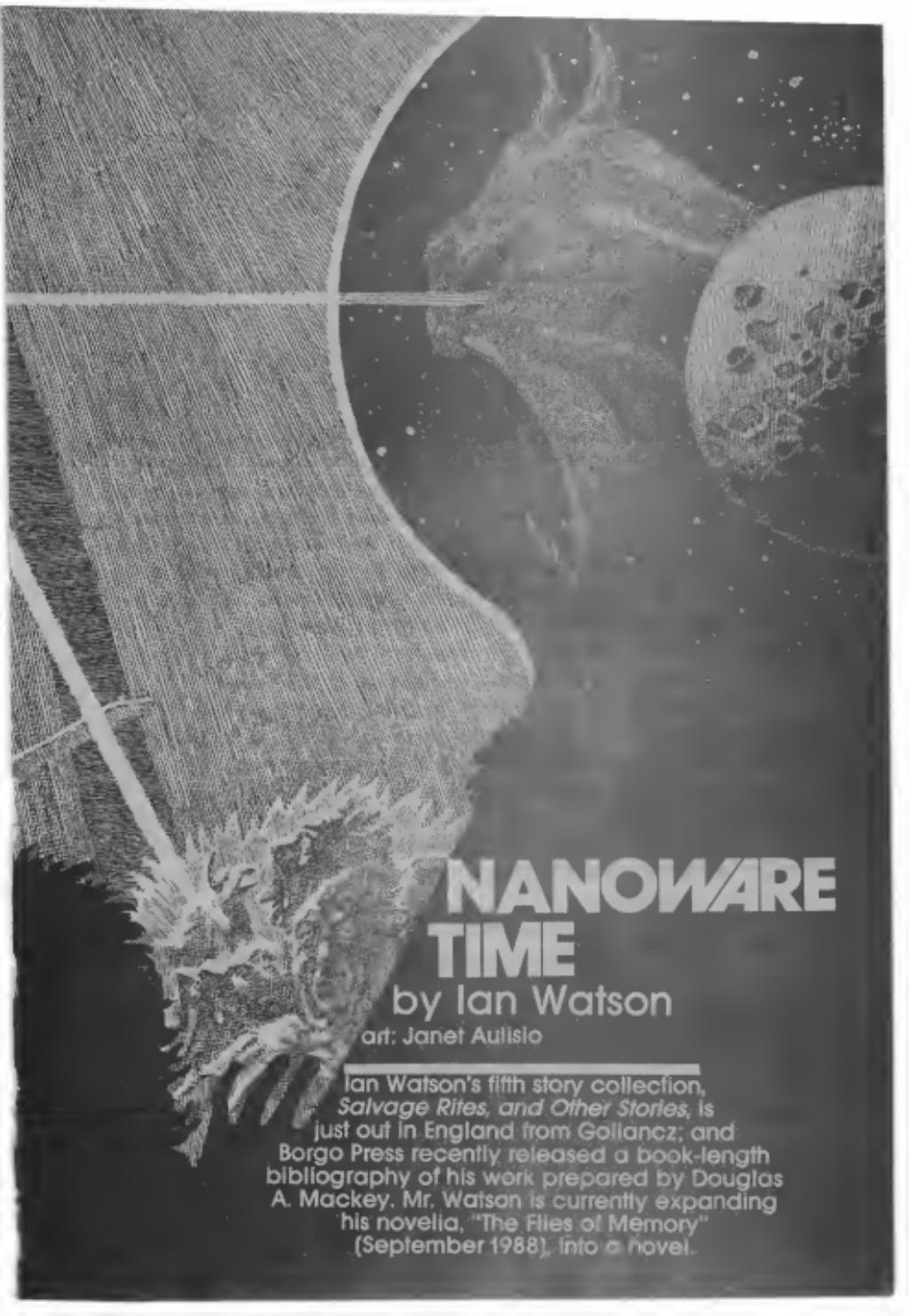
As is *Manhunter: New York* from Sierra On-Line, Inc. (PO Box 485, Coarsegold, CA 93614). *Manhunter* follows in the very successful footsteps of Sierra's *King's Quest* series and Cinemaware's interactive movies, like *Defender of the Crown* and *The Three Stooges*. The scene is the Big Apple after nefarious orbs from space have invaded. The orbs are in charge, using Manhunters—human quislings—to keep an eye on the populace. The player takes the role of one of these manhunters, using a handy laptop to keep tabs on rebellious activity.

As becomes quite clear, the real object here is to contact the secret humans fighting the orbs and join them, before the orbs begin to question your loyalty. The game's graphics are some of the best I have seen. Bizarre scenes of horror and humor are mixed, and the game uses all the devices of the cinema, close-ups, overhead views, and zooms to make the action really seem like a movie.

Without the hint book it's still possible to get hung up. But Sierra provides a help line should you need a few suggestions on where to go. While a few of the sequences seem to test the player's patience, there are other moments that are priceless.

Three games, then, each one bold and brilliantly entertaining creations, showing just what a computer game should be. ●





NANOWARE TIME

by Ian Watson

art: Janet Auliso

Ian Watson's fifth story collection, *Salvage Rites, and Other Stories*, is just out in England from Gollancz; and Borgo Press recently released a book-length bibliography of his work prepared by Douglas A. Mackey. Mr. Watson is currently expanding his novella, "The Flies of Memory" (September 1988), into a novel.

*Get your spook on, John
Get your demon screamin'
There's hell in your head
And you're seein' red*

*It's nanaware time tonight
There's a ghoul in your brain
And you're goin' insane
Your power's a-risin'
Over hell's horizon
It's nanaware time tonight
It's nanaware time tonight
It's nanaware time tonight*

That song was all the rage when I left Earth. Not a very sweet accompaniment to my departure! As the engines of the hotel shuttle kicked over from turbo to rocket mode, their thunder laid down a beat just like the drum backing to that howled-out chorus which was currently boosting the new demonrock group, Snakes, to whatever prize lay beyond platinum and gold disks. Maybe a diamond disk? A perfect discoid diamond fashioned out of chunks of carbon by the power of one of the possessed, then etched with the sound track by his or her laser-gaze. . . .

Once the rockets had cut after boosting us into an orbit to overtake Space City I paid more attention to the passenger next to me.

Close-cropped ginger hair, milky skin spattered with freckles: she must burn easily in the sun and might wear wide-brimmed hats to shade herself. Her eyes were the grey-green of a murky aquarium, no, that was snide, the green of unpolished malachite. Her nose was snubby and turned-up. I imagined a skinny flat-chested nub-arsed tomboy climbing trees and wrestling in the dust. She wouldn't have worn any hats back then so she must have peeled like an onion skin. Since, she'd taken better care of her complexion.

Couldn't be some rich young thing riding the shuttle up to Space City for thrills, else she would be with a tourist friend. So: heading for a job at Ess-Cee? Or onward to the Moon?

"It's nanaware time tonight," I murmured to her. "Did you hear it in the engines? Dad-duddudu-da-da-dah!"

"Your first time in space?" Amusement sparkled. Sweet buzzy accent, like a honey hive. Hives have stings.

I explained how I'd completed a two-year hitch at Luna City five years earlier: communications and entertainments. "This is my first time since the aliens turned up, though. I've been taking nanaware training in Alaska. Simulated. I'll complete on the Moon."

The malachite gleamed with interest. "You're going to Luna Tic?" I'd never heard it called that before, but it fitted.

"Luna Two, right," I agreed. "Farside: lots of rock between the Earth and me. You?"

"Same! Except I trained in Greenland, brrr. If any of the little nanos escape, their feet'll freeze."

If I'd been hoping to startle and excite her, it was my turn for a shock.

"You didn't have actual active nanos in Greenland?"

"Just joking. I guess our masters think if we're too successful in our training—should we somehow trigger the real thing—at least we'll do it in a deep freeze with no populace nearby. Why else stick us in such godforsaken holes?"

"Why else indeed?"

"Come on, why?" she demanded, and answered her own question: "Keep us heroes out of the public gaze, is why."

I had not figured her for an enrolled nanoware volunteer. Apart from that ex-tomboy aura she seemed fey, with a kind of capricious frailty as if any light too bright might burn her up. What could be brighter than demons?

In short, the type of woman who attracted me. Which was folly, since such women rarely responded with honest passion. They were possessed by their own narcissistic quirks. They might seem hectic and unconfident—my present companion sounded so—yet there was a vulnerability in them which they guarded coolly. Ultimately they would surrender to some brash hulk of a fellow, someone crushingly confident and instinctive whom I would view as stupid. The mass of his authority would suck her into his orbit; he would be the sun fated to consume her. Not me.

So why was I attracted? Did I wish to take such a woman under my lame wing? Did I wish to ravish her? Or was I basically trying to evade what's known as a full mature relationship? Maybe the truth was that I didn't regard other people sufficiently as people. I saw animated bodies, the hardware, so to speak. Their software sensed this and resented it. Maybe that's why I was attracted by the physical semblance of softness, the vulnerability. I suspected that, though desirous, I lacked true passion for other persons.

Surely full passions would flood me, courtesy of alien demonware! Nor would I fail to control those passions and focus them, put them to work. At the same time those devilish passions would change me, altering my magnetic field.

Enough of Paul Royal's treatise on love! It was a treatise based on failed experiments, rooted in hapless self-analysis, the results of which I then projected upon a whole world of other people. Those other people all seemed to know far better than I what they felt and wanted and how

to obtain it. They also struck me as being not entirely real. Had this young woman ever worn a broad-brimmed hat in her life? I was seeing her as an advertising image in my own personal catalogue. And alas, I knew this.

"I'm Kath," she told me. "Kath Knox. My folks came from Scotland once upon a time."

"Paul Royal. Hi! Pleasure. Us heroes should stick together."

Might Kath prove to be a future pleasure? I could swear that she wasn't some virginal Fort Knox, or calvinistic Knox, drawn to the devilry of demonware yet sternly determined to control its excesses. Here was a new tree for her to climb, with a tiger kitten lurking in its branches for her to sport with. Here was a lunar sandpit where she could wrestle with psychic serpents.

Under her wide hat, she would grow cool towards me sooner or later. She would cling for support to somebody like Mickey Wright. Mr. Right.

Fellow alumnus of Alaska Mickey Wright was built like a football player. Gregarious, almost too easy in his manner to seem arrogant, he sat a little further down the aisle with those others who were my colleagues but not my friends: Sheila Shwartz, Dan Shannon, and the Federal German Wolfgang Kellner. So damn strait-laced dedicated down at their bedrock. Soldiers of the human race.

Wasn't I dedicated too? Yes!—pledged to taste the strangeness which had come from the stars, to disordering myself a tad and more, though keeping to this side of madness. To becoming a person beyond Paul Royal, a person-plus, for as long as I was allowed to experience the sensation.

Tardily, the ablation hoods recessed from the portholes to let us admire either void and unblinking stars, or else the cotton-swirly swell of Earth. Filtered sunlight flooded our side of the cabin. Kath blinked.

"Would you pull the shade down?"

I did, being in the hullside seat.

"That's why I asked if this was your first spaceflight, Paul. Space isn't dark at night, at least none of the space we've reached so far. It's bright. Bright as the space inside our heads when the nanos light it up with flaring demons. That song's a lie. It's nanaware time *today*."

"High noon of the mind, eh?" When the disciplined deputies of the Lunatic Posse square up to face the wild bunch from Beta Hydri. . . . "It's pitch dark on the Moon's hind-quarters during lunar night, give or take starlight. How about interstellar space? Don't forget all that dark matter. More of the universe is black than bright."

She shook her head. "When we go to the stars we'll blaze our way there, riding our demons. As the Serpents blazed their way here."

"Unless we burn our brains out." Scuttlebutt had it that there'd been casualties amongst the early volunteers.



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DRAGON PRINCE: BOOK II

THE STAR SCROLL

BY
MELANIE RAWN

DAW  FANTASY

"Fuck that," she retorted, taking me aback again. "Brick-brains, those were. Stone-wall skulls. Blatt, they burst. You got to be a rubber-brain to take the strain. You got to stretch, expand yourself."

My sentiments exactly. However, relations with the aliens and nanowork weren't exactly structured for the benefit of people who were *eager* for mind expansion. How much did I dare say to her?

"Must be a real headache for the authorities," I said, "how to recruit suitable loyal puppets who can also space-out into devilry."

Briefly a strange expression twisted her face. She was about to confide, but censored herself. White as a vampire speckled with flecks of rust. . . .

Image, image.

Don't care for the scrutiny of naked sunlight, do you, Kath? It might reveal you. You're gabby because you're nervous. But not about space-flight. Been in space before, haven't you? Not nervous about nanoware, either. You're nursing a secret ambition; as am I.

She smiled at my scrutiny, and her teeth weren't pointy. Image evaporated.

"What were you before?" I asked.

"Oh, in entertainment, too. Singer, guitar. Been with a couple of bands, nothing big. You wouldn't have heard of Kath Knox." She shrugged to dismiss the past.

Me likewise. Raised as an air force brat by feuding parents, I took a degree in radio studies, then worked as a producer and broadcaster for commercial stations before and after Luna. It had to be radio for me, didn't it? The caressing voice, the hidden face. The face behind the voice was often so alien to the image you conjured while listening. There was nothing ugly or offputting about my own face or body. Still, this wasn't the body that I felt myself to be, nor the face. I ought to have been a couple of inches taller. I ought to have had a slimmer build, a less buttony nose, thicker fawn hair, eyes that looked less startled, a neater mouth less like Donald Duck's. Quack-quack: I had trained myself not to quack but to drawl, to sound relaxed instead of frantic.

Farewell to my prior pedigree, too! Except that now I was heading back to the Moon because life had changed, though Earth liked to pretend otherwise.

"Kath knocks, but who answers?" I joked.

She laughed obligingly. No bitterness. Had she abandoned her earlier ambitions at all? Hadn't she just voiced a song for me: *We'll blaze our way to the stars. Riding on our demons.* Hadn't it sounded like: 'I'll blaze my way to stardom'?

"So how do you rate demonrock?" I asked.

"It's a phony. Dressing up as alien serpents. Screaming about fiends

'n' possession. Laser fireworks. It's sponsored by the government to scare people off."

"Scare people from applying for nano training?"

She hoisted her eyebrows exasperatedly. "From ever wanting that scene brought to Earth. Sure, demonrock makes out like it's the big thrill, the ultimate high. It also says: Satan'll get you and burn your brain in hell. The devil'll ride you and you won't throw him off. Groups like Snakes and the Furies are no more revolutionary than Southern Baptist country singers vocalizing about cocaine. First the glitz then the ghastly bit. Pay-off time."

And now she really proceeded to let off steam, though only in a heated whisper. Words like "revolutionary" weren't part of decent parlance.

"Wouldn't want to whip up hatred against the aliens as such, Paul, would we? Too much goddam interstellar power. Let's keep the whole show on the backside of the Moon, huh? Like a bitey tick on Luna's frozen ass, injecting God knows what poison virus. We'll be lunatics, you and I, in Lunatic City. Then we'll be lepers back home, *hero*, as if we have a star-disease. Rich lepers, true. Why lepers? 'Cause the kids are flooding in to Snakes and Furies shows to scare themselves frantic. Ghost-train time is all that is, to them. Wanna meet a real spook, kids? Scream, scream—"

"Okay, Kath, you have my vote."

She broke off startled, as if I'd pressed a secret button.

"What would you bet demonrock groups get simulation training somewhere icy too? Like Antarctica," she hinted.

Did she know this for a fact? Which button *had* I pressed?

"Demonrock deafens the populace, Paul, so the people will stay deaf and dumb to the universe, and the para-demons."

I nodded. Clever repression was a way of life in the present century, wasn't it? Farewell to the anarchy of the late lamented Twentieth with its rebellious music. Demonrock was a control device. She was right; it had to be. The new volcano needed a vent to ensure there was no explosion, only hot air.

"A nano-leper," she said slyly. "Would you let your daughter marry one?" She was asking another question entirely.

"You know they only chose singles for this job. And I'm not quite so old."

"Thirty-five? Dozen years older than me?"

"About."

"Even singles have allegiances."

"Not this one." Not me. Not since I first left for the Moon, abandoning a broken relationship and the drag of Earth. I had wanted space to expand in: the great dome of star-bright void above the ample domes and caverns

of Luna City, the empty airless plains. On the Moon a refugee from his fellows could hike off in a hardsuit to private places untrdden by anyone else in the history of the universe, this guaranteed by the absence of bootprints other than your own. Yet that space proved confined, for of course it existed within my own skull. I returned to Earth, imagining I was homesick for sky, for open air. Now I was returning to the Moon where aliens had shown us how to open up that inner space to host a cosmic companion, fiend or friend, something fierce, fundamental, paranormally powerful. To host it for a while until the Reject tab was pushed.

My brain would be a government-leased cassette player with other fingers than mine controlling the Play and Reject tabs. Our radioactively-tagged nanos wouldn't be *ours*; after each use they would be flushed out of us. Other delayed-action nanos would have been injected into us. After a time these other nanos would break the demon doodahs down, dismantling the nano-built neural nets which let us summon demons.

What would demon-love be like? Two demons in congress together? I felt sure that no such thing would be allowed. Yet how could it be stopped? While we wore a demon, weren't we all-powerful?

How could it be stopped? Might we volunteers be rigged as walking bombs which could be detonated by remote control if we disobeyed, bererked, went critical? If we somehow zapped the disassembler nanos in our heads by psi power? Might we volunteers remain innocent of such booby traps? Paranoia . . . or healthy suspicion?

"Too much control's bound to fail," I said softly. "If they're trying to control people-plus it's like training and saddling and bridling . . . a tiger. Even with a gun pointed at its head, even with a bomb strapped to its belly! Sooner or later, sooner or later . . . provided the people are tigers, not rabbits."

I saw her wrestling with a tiger in a treetop. No, she with her ginger hair was the tiger—though only while she was up the tree, image of the brain sprouting on top of the spinal trunk, growing new branches, unfolding new leaves, due to be pruned all too soon.

"You and I," was all she said. "You and I."

I felt a surge of real hope. She wasn't the person I had first supposed.

Chimes sounded. Ping. Pong. Pang. Over the PA our captain's voice announced that we would be docking with Space City in another ten minutes.

Not so much a city as a village. Along the continuous curve of main street, chickens cooed and cackled in coops. Growth-hormone-hyped fish circled lazily in ponds. Living units were roofed with vegetable gardens. In the basements: mushrooms and beansprouts. Flight into this orbit was a hike back to the farmhouse, suburban-designer style.

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You could jog forever along the crowded main (and only) drag, passing the same landmark every few minutes. The doughnut ring was a kilometer and a half in diameter, and revolved twice a minute so as to maintain two-thirds of Earth gravity. Transfer tubes linked the doughnut to the central spindle. This was revolving more sedately, at lower gee. At the top and bottom of the spindle swelled two giant kettledrums. The upper drum housed labs and observatories. The lower one contained industrial facilities, and also the port where we docked. The drums were zero gee; rotating ringways matched pace with the spindle shaft.

Apart from living quarters, the main doughnut torus included cinema, dance hall, gym, swimming pool, study center, and souvenir shop. A night out at Ess-Cee meant the soft drinks Spinning Wheel Bar and the Sky High Restaurant. In the bar, as I recalled, a huge realtime screen showed the planet as viewed from the observation deck at the base of the bottom, non-rotating drum. Naked-eye observation from the bar itself would soon have had spectators reeling dizzily as drunks at sight of the Earth swinging by every thirty seconds. The Sky High boasted mushroom omelettes, carp, and beansprouts; for a total splurge, fried chicken.

After we'd tubed through to the doughnut and checked our bags into our short-stay cubicles, the other members of the Alaska contingent were for hitting the Spinning Wheel—where else?—followed by the Sky High for supper. A second Greenland graduate, who'd ridden the shuttle up but whom Kath hadn't chosen to sit by, would tag along. Hank Jankowski was his name, but he never said much else.

Kath and I promised the others that we would meet up soon for camaraderie. Could hardly avoid doing so. Meanwhile we would walk around the village a couple of times to stretch our legs.

A shift was returning from one of the drums: Cauc faces, Slavic, Oriental, Afro-American. Men and women techs and scientists who were two-year residents of the village in the sky. Cloned jumpsuits with velcro pockets and velcro bum-strips for zero gee work, though in every shade of pleasing pastel.

We spied a tourist couple fancy-dressed as Wonder Woman and Captain Marvel strolling towards the souvenir shop. They looked bored.

"It's only prestige to them," said Kath. "Me, I thought I could sing about Ess-Cee."

"You were here before as a tourist?" (*Rich daddy.*)

She hesitated. "Knox is my mother's name. My daddy's name is Dwyer."

"The senator?"

"The same."

"Do you know for a fact if some volunteers had their brains fried? Did he tell you that?"

"The psych tests weed out people who'll crack—"

"But there was something else, wasn't there?"

"Was. I honestly don't know what. It doesn't apply now."

"Apply! He helped you apply, didn't he? Whatever the risk."

"Just so long as I passed those tests. Couldn't pull a string to fix those."

"Funny daddy."

"Politics, right? I'd gone the black sheep route. Music-rebel, dissident. Could be harmful to his image. Maybe now I'll die a heroine. Senator's daughter gives life for world and country."

"You weren't sassing me that demonrock's manipulated by government."

"That's the soft repression system for you."

Most everyone was in on the act. The world was an overcomplex, aerodynamically unstable airplane. Its billions of passengers were all strapped in, by one set of restraints or another. Any outright revolutionaries on board were obviously terrorists—to be speedily snuffed by whichever set of security guards. Whoever loosened their seatbelt wasn't too popular, either. Meanwhile the in-flight videos and muzak played continually to lull the passengers. It had been thus all my life. I imagined that huge plane hitting turbulence. As it broke up in mid-air, all those passengers who could manage to unlock their belts suddenly learned how to fly—off in a thousand different directions.

"Demon nanoware loose on Earth could explode society," she murmured. "Can't keep such power quarantined forever on the Moon."

I shivered. To avoid a reply I steered Kath into the shop where Captain Ennui and Jaded Woman were scrutinizing a display glo-labeled "Original Demondolls, All Unique!"

Holograms of naked men and women six inches high undulated sensually atop the vitreous surfaces of little control boxes. As the figures slowly danced, so they changed from human flesh into power-aura demon onward into golden alien, then back through demon into human form again. Somebody's spare-time home industry on Ess-Cee. Ingenious, beautiful, lightweight, slip a demondoll in your pocket, centerpiece for any dinner party as surely as if you'd personally visited the backside of the Moon and seen for yourself.

"We'll be those dolls," whispered Kath. "The human-demon part of the cycle. Always switchable back to normal."

"I want one of those," whined Jaded Woman. Captain Ennui obligingly pulled out his gold credit card to run through the auto-till.

"Always abortable." Kath leaned past the tourists. With a fingernail she pushed a silver bump on one of the vitreous boxes. The holo vanished.

"Hey," the woman protested.

"We'll be wired to explode?" I asked Kath. "The site'll be fixed to vaporize us?"

"If Daddy knew that, he wasn't telling. What do you think, Paul?" She pushed again; the holo sprang back, aglow. Now it was a golden alien, a fat segmented serpent rearing upright with altogether too many arms and legs.

Kath nudged Jaded Woman. "Hey, yourself. We're nano-wearers and we're gonna switch on soon."

Wonder Woman flinched away, offended, scared.

"So why these aliens come?"

If Vitali Lavrenko had been any stouter he might have cost too much to put into orbit. Lavrenko was one of five Siberian nanoware graduates who had shuttled up from the Baikonur cosmodrome to catch the same moonliner as us. When Kath and I arrived at the Spinning Wheel the two groups from East and West had already linked up around a table in a horseshoe booth like twin strands of polymer. Introductions over, we two late extra molecules joined on the end. Tomato juice sealed the union.

Lavrenko glared about with jolly belligerence.

"Do they bring a Trojan horse to destroy us? We must be the clever Trojans, eh? We deal with this horse outside the walls of Earth!"

Konstantin Bilov was a pale wraith of a fellow. He raised a slim, musician's hand.

"Or do they truly wish to show us our full potential? Reach of the mind? Thus we may enter mature cosmic society. But we must be cautious."

Sure, cover your ass. Bilov looked as if he'd been fasting in preparation for his encounter with aliens and demons. He had to be tougher than he appeared.

Natasha Antonova, on the other hand, was a dark springy athlete with rosy cheeks, flower of womanhood.

"Nanoware," she said solemnly, "may be route to enhanced intelligence, yes? Expanded data, expanded expertise. We inject nano-computer into brain with nano-assemblers to build neural links. We might learn how to do this. Not to interface human brain with macro-computer. Carry computer inside brain instead. Listen: meat-brain anywhere in cosmos must obey same formative laws, follow common pattern. How else could Serpents give us usable demonware and dissemblers, yes?"

"Disassemblers," Lavrenko corrected her. "Dissemble means deceit. And maybe the Serpents are deceitful!"

Dan Shannon put in his penny's worth. "Wouldn't it be neat if we could optimize ourselves without involving demons? If we could make nanos to upgrade our brains, like you say, Miz Antonova. Right now it's as if

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these Serpents are showing us a nuclear power plant, then letting off five megatons to demonstrate the flip side. Do we really want this? Can we handle it? First we have to do a balancing act with a live warhead."

Shannon had been a designer of war game software. Balding but dapper, he was the most flexible-minded of my fellow graduates.

"Look on the bright side," he went on. "The Serpents could have encouraged us to nano ourselves up to the eyebrows in all innocence. One day demons would have risen in our skulls, yeah, like Trojan horsemen, and taken us over. I say trust the Snakes. A bit."

Even Shannon seemed to believe we could eventually dispense with the demon aspect rather than this being the prime component, a total challenge to our world view.

"Reject this name 'demons,'" said Antonova. "Are no gods or demons. Higher-order entities? Denizens of deeper dimension?"

"—which we can summon and control? In that case how can they be 'higher'?" That was Sheila Shwartz speaking. A small, wiry, rinsed blonde, a test pilot till she volunteered to fly her own head. I liked her about as much as the mouth-puckering taste of alum on my fingernails back when I was seven and my dad tried to control my nail-biting.

"Does a sheep summon a human being to serve it?" she asked.

"Perhaps life-forms made of energy?" suggested our Russian athlete.

"Which meat-life can suddenly exploit?"

"In symbiosis! Universe is suddenly perilous place."

"Or a wonderful place," chipped in Kath. "With mind-friends to call upon."

"Fiends, you mean." Shwartz knit her fingers round her glass of tomato juice as if weaving a hex.

I stared at the screen display of Earth's blue Pacific where cyclonic clouds deployed spirals reminiscent of the convolutions of a brain. What a long way the aliens had come, demon-powered.

Twenty-one and a bit light years, to be precise, from the Beta Hydri system. Their yellow sun, a quarter larger than our own, was tucked away down near Earth's celestial south pole, not far—in the night sky, at least—from the fuzzy blotch of the Small Magellanic Cloud.

Beta Hydri was in the constellation of the snake. Thus the name Serpents stuck to the aliens even though they looked more like huge centipedes than serpents. Golden, chitinous cylinders twice human-size, supported by eighteen pairs of scaly legs. The front two body segments sprouted a pair of arms apiece. Heads like Halloween pumpkins, black slashes for eyes, mouths with big stumpy grinder teeth and purple tortoise-tongues.

Naturally, the Hydrans weren't centipedes. They were products of alien

evolution upon another planet which was probably more massive than Earth, hence their numerous support-legs. On the Moon they could rear high, dwarfing the tallest human being. Yet, as Antonova said, their brain structures might well resemble our own. And why not? On our own planet the eye evolved as an organ no less than forty times, of necessity, so I'd heard on a science show. A brain able to generate consciousness might demand a structure similar to that of the human brain.

The aliens had arrived a year earlier, engulfed in light, wearing their demon powers around them, propelled through metaspacetime, space shrunken, time stretched.

They came in glory, riding a half-mile-long jungly habitat shaped like a dart. The riotous, rubbery, green vegetation housed a jumble of silver cones, red balls, and blue cubes. It was a tropical Christmas tree within its own atmosphere bubble. The flat keel had the look of cuttlebone or dressed limestone.

Rising on edge (without anything tumbling off) and certainly taking its time, that jungly dart had circled Luna City several times before sliding away over the horizon to settle into Mare Moscoviene, the Sea of Moscow. Watched by satellite, various balls and boxes promptly rolled and bounced off to expand into shimmery arenas, plazas, and arcades. Open for business. Heedless of the hard vacuum, Serpents strolled about in the lunar dust, aglow with dragon shapes.

Twenty-four hours of remote sky-spying followed. Next, a manned LOB ship took a low orbital boost round to land in the Sea of Moscow, where a demon-ridden alien explained itself. The demon forged the bridge of language telepathically, paranormally. That was a translator-demon.

According to the Serpents, the universe of metaspacetime was saturated with fields of force which allowed levitation, farjourneying, psychokinetics, pyrotechnics, mindblasting, telepathy, a whole box of tricks. The aliens had come to make us a gift of their methods of demon-evoking, demon-control, demon-banning. Demons had flown that bizarre habitat-ship across twenty-odd light years inside a couple of terrestrial weeks. Demons gave the Serpents their special powers, which we too could learn to use. You evoked demons by injecting the appropriate nanoware into the bloodstream, thence into the brain.

How diplomatic of our aliens to land on the rear of the Moon.

I felt a surge of anger, frustration, and claustrophobia. Shwartz, stolid Lavrenko, prissy Miz Comrade, laconic Mickey Wright: what a drag these people were, these good servants of the human race, the brave salt and the savor.

But not Kath. Not her. She wasn't a drag. She was a spur. Friskily, riskily the other way. Would she ever have got into nanoware training

except for the influence of Senator Dwyer, who hoped she might become a well-behaved heroine, or die as one? Except for Kath I might have adjusted better to circumstances.

Something wild (and terrible, of course) had withered during the past half century as one moral repression after another clicked home for the good of all, till mostly our topeavy world was tame. Mature at last—or stuck in the mud? Designer-rebellion was sold as slickly as a soft drink; all image, nothing but image. Nothing new, till the Serpents came.

I raised my tomato juice in a toast which I fancied might prove provocative.

"Here's to the first human starship! To a chunk of the Earth levitated by our demons and steered to another star!"

Such a toast provoked timidity. Kath saluted loyally with her glass but the others only fiddled with theirs.

"Which star, though?" queried Lavrenko. "The Serpents hint that other powerful races flourish out there. Those other creatures have not bothered us *as yet*—"

"Unless," suggested Bilov, "we interpret anomalous flying objects and their passengers as being demon-powered scouts or tourists."

"We *must* be able to safeguard our home," stated Lavrenko flatly.

Already I could foresee the outcome of our nanoware expertise: Earth sheltering behind a demon-screen projected from the Moon's backside. Volunteers, primed to self-destruct if need be, bravely manning the Security Shield. No one going anywhere much.

"Perhaps to Mars," said Antonova. "To found base like Luna City—colony!"

A picket-line outpost.

"Or even," she added wildly, "moon of Jupiter."

I had to protest. "Why do we need bases and colonies in some frozen desert or on another dead moon when we could rip up some of our native turf to float to the stars and back as we please?"

Shwartz shook her head. "Not a chunk of Earth, no way. We'd be letting demons through our front door. A strip of the Moon is a possibility."

"How luxurious. What fun."

Kath sloshed her drink about. "Wouldn't happen to have any vodka for this?" she enquired of Lavrenko, who regarded her with horror.

"In a frail space station," he chided, "no drunk can be allowed."

"A drunk? That sounds so much gutsier than a drink! Let's all have another *drunk*, friends." Kath waved vaguely towards the bar.

"I mean a drunk person."

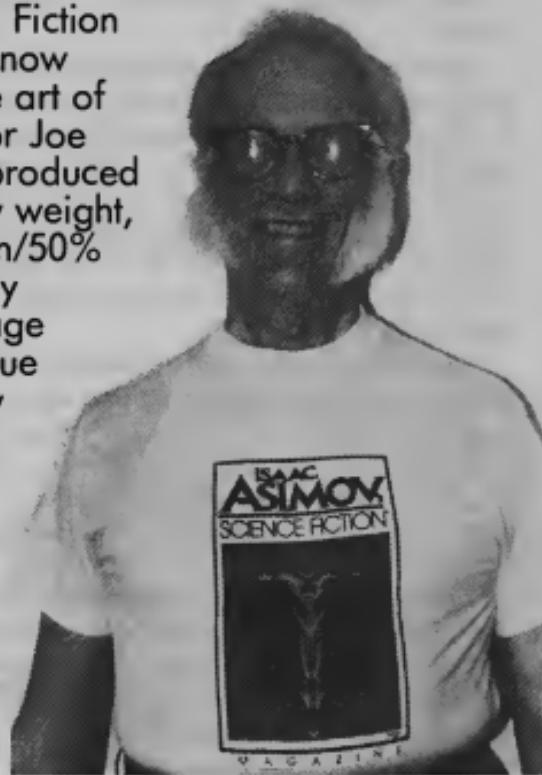
"Possibly aliens do not colonize," suggested Antonova, "because is too easy for them to travel home again. Too comfortable. Whereas—"

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"—a Martian gulag would breed the right spirit?" Kath laughed. "Or do I mean distill it?"

"Don't you go counting on demonware being easy or comfortable," advised Mickey Wright. "Those Serpents might need to really concentrate."

"Welcome to the concentration camp."

"If they slack off, Miz Knox, hard vacuum snuffs them and their precious starfaring jungle."

"Did Christ die on the cross," she asked flippily, "so we could all make merry?"

A conversation stopper for East and West alike. The existence of something resembling demons was embarrassing to the Marxists. True, they had long been involved in scientific study of the paranormal as a material phenomenon—a fascination which, in my opinion, wasn't entirely unconnected with their efforts to abolish religion. The paranormal offered the Russian soul—still superstitious and devout—a sublimation of repressed religious desires. If actual demons upset the Marxists philosophically, I believe on a deeper level those demons spelled spiritual blasphemy to them.

Meanwhile in the lands of official faith, the arrival of the Serpents could be viewed as validating part of religion—unfortunately the wrong part, the Satanic part. Look the other way and speak of force fields? Technology had collided with devilry. Churches were in some turmoil. Western governments dissimulated their own urgent interest in demonware. Hypocrisy, manipulation, subterfuge. Don't rock the boat but make sure you net those fish.

"I give us a good toast," announced Lavrenko. "Here's to our successful training on the Moon for the mutual benefit of all back home."

"May we not be led astray," Wright added.

Kath and I sipped our tomato juice. What else could one do in this prestige bar in the orbital village?

Alaska had offered a mock-up of the Moon using drugs, hypnosis, and flashy sound-and-light shows to simulate circumstances in the Sea of Moscow. We volunteers also received a crash course in nanotech theory. Nano scale is billionth of a meter scale. Nanotech is the art of manipulating individual atoms and molecules to build virus-sized molecular machines able to reproduce themselves and carry out construction or demolition jobs, in this instance deep inside the brain.

Prior to the coming of the Serpents, nanotech had remained pretty much in the realm of hopeful theory, despite our best efforts at building protein hormones and enzymes as tools with which to manufacture even tinier and more efficient programmable nanomachines. These aliens had

already created nanos which could vector in upon neural structures and extend these, building new neural nets as the hardware to host the software of psi-consciousness.

During the course of human history, seers, mediums, and witches must sometimes have been able to pick up faint signals of paraconsciousness and activate the powers spasmodically. Now, with nanoware in our heads and the brain receiver properly tuned, the higher order forces would be at our call full strength. Different networks were needed to summon different demons, and you exorcised yourself by means of those other antibody nanos. Serpents seemed to wear the same demons day in, day out, but us humans wouldn't go full time, no sir, nyet tovarich. Earth was adamant on us flushing the stuff out of our heads after every session, even if this "cost more sweat" as one of our instructors phrased it enigmatically.

That evening Kath and I ate mushroom omelettes washed down with alcohol-free wine at a table for two; and I mainly told her about Luna City, to which Senator Dwyer's fatherly treat had not stretched. Only super-rich tourists headed as far as the Moon.

Next noon, all of us set off on our two and a half day free-fall haul to the lunar orbit transfer station. If we'd been wearing demons, I suppose we could have flown naked to the Moon in a few minutes. Due to flare activity on the Sun, the portholes of our moonliner, the *Lincoln-Lenin*, stayed blank almost all the way. Kath and I played many games of magnetic chess; we had ample opportunity to become fed up with each other, but we didn't. Not a bit of it.

Lunar Customs were more strenuous than I ever remembered. That's Customs & Immigration, not fun and games such as low-gee basketball. The outbound channel had a body scanner in operation, which I presume we incomers were meant to see as a caution that no one leaving Luna could hope to hide a needle in a haystack, much less a hot nano in a hollow tooth.

After what seemed like the Trans-Siberia of space, we volunteers had a three day furlough to limber up, acclimatize, see the sights. I took Kath to an old haunt, the Jewels Bar. It was there that we met the hothead.

The bar was decorated with blown-up stills of moon caverns and Selenites from the 1960s movie of *First Men in the Moon*. If people had evolved on the Moon, Vance Griffin could have passed for a pretty fair Selenite himself. He was gangly and ultra-thin. The blond fuzz on his upper lip (and skull) looked like strands of cotton wool left over from some shaving mishap. With his large bobbing head and habit of swaying about, I used to think of him as the Human Pendulum.

And indeed, he was a seismologist whose joy was to plant a packet of

explosive in some distant crater and hear, through his instruments, the whole Moon boom like a gong, revealing its inner heart. What might have been jerky, angular awkwardness on Earth, imperiling seismic set-ups, was in lunar gravity *grace*: as of a spider-crab wafting in deep water. Vance had arrived on Luna just a few months before I left; he must have taken up permanent residence.

Kath and I were drinking mock piña coladas. The Moon was dry, what else? I bought Vance a drink. He seemed disconnected, screwy. Up close he looked haggard, as if he too had boomed like a gong (and still was booming), opening up cracks in his face, and, for all I knew, in his cranium. What had got into him?

"I can't go home," he soon confided. "I'm a lunatic for life. You've seen what Emigration's like, on account of—you know."

"We do know," Kath said brightly. "We're going to train as loonies ourselves. Backside loonies." She didn't care if Vance seemed crackers, the madman-in-the-moon, but I was worried.

Vance sniggered. "Think you'll go home afterwards? Don't kid yourself. I'd advise you to transfer into shit-shoveling, same as me."

I gaped.

"You'll get fringe benefits," he hissed. "Look, I trust you, Paul; so she must be okay too. Got a *still* down there, the only shebeen in space. We're the underground movement. People have movements and we go underground, get pissed."

"You're distilling alcohol out of *waste*?" Was this even technically possible? "What happened to you, Vance, for God's sake?"

"Ain't I a nano hero too?" He raked his head as if to draw blood among the cotton wool curls. "First of the brave! Only, there was this little *heat* problem. . . ."

Gradually we disentangled his story. The Human Pendulum had volunteered to blow his brains as a change from blowing holes in the lunar crust. At the outset, the alien nanos did their job all too swiftly. Heat was a byproduct of all the rapid molecular activity in the skull while the busy little nanomachines built the nanoware. Thus some brains got cooked. Fused.

"It costs more sweat." Right? Vance was among the survivors. Their brain damage was repaired by other nanos; sort of repaired. He'd been rehabilitated, retrained as a waste recycler. Nobody literally shoveled shit, and I couldn't say whether Vance was being literal as to the source of illicit alcohol.

As soon as the aliens reprogrammed the nanos not to work quite so fast, the waste heat problem was licked. However, rigid thinking had been another problem. Several subsequent volunteers went crazy. Some people just shouldn't be required to think the wild thoughts that assisted

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the kindling of demons. The aliens recommended the psych tests, tests of flexible world view. Yes, even Mickey Wright was flexible enough; and Shwartz was a test pilot, wasn't she?

Victims of lunacy were being cared for somewhere in Luna City, their every symptom studied. Was Vance being followed up, in his case using a hands-off approach? He certainly wasn't going to be invalidated home.

Scary question: were any of us volunteers ever going to see Earth again? I felt the way a fly must feel sliding down inside a pitcher plant.

Kath remained buoyant, determined to plough her own furrow. She leaned forward conspiratorially.

"You're an explosives expert, hmm? Do you know if the volunteers are booby-trapped?"

Vance raked his head, bemused.

"He was a geologist, Kath."

"I was good at making bangs," he muttered ruefully. "Let's consider the lady's question. I trust you, Paul; so she must be okay, too. . . . Oh shit." A zany grin spread over his face. "I'm recycling. It was a year ago. Infancy of the project. You'll be wearing a hardsuit. Alien arenas are hard vacuum. Can't handle vacuum till you get your demon dancing. Can make the fucking suit of shaped plastique. Takes you a while to strip a suit off—longer than a radio signal takes to hit it." He peered at Kath so close he might have been about to rub noses. "You wanna smuggle some nanoware off Luna, hey?"

She thrust him away. He rocked back gracefully, his arms sailing out to sink limply in the low gee.

"Shut your mouth," I told him.

His eyes sought mine. "So you're in this too, Paul?"

Yes, I thought. For good or ill, probably for ill. At that moment Kath laid her hand on mine, more like a sister than a potential lover, and another question was answered for me, an answer perhaps to the whole dilemma of my life. We could only become lovers when we were both ridden by demons, when our demons would embrace and copulate or conjugate or whatever demons did to get their rocks off. Only then, when we were human-plus.

Of course, I knew next to nothing about the desires of demons, rather less than I knew of the motives of Serpents from Beta Hydri, which was precious little.

And what were Kath's real motives? To finesse some demonware back to Earth so that it could somehow be bootlegged for revolutionary purposes? To kick us all into the wider cosmos? To kick her daddy where it hurt? To return to Earth switched on, and with demon aid become a Satan of a singer, a lit-up Lucifer?

Whichever, I was possessed by her, intoxicated in a way you couldn't otherwise be upon the dry Moon—Vance's distillery notwithstanding. When the demons would ride us on Farside, though, the possessed must become the possessor.

"Let's go," I said to Kath.

Vance was at once too spaced-out and too perceptive for us to risk any further entanglement with him. For the rest of our three days Kath and I contented ourselves with doing the respectable Luna City scene together: the Grand Mall, the Garden of Fountains, Vershinin's Restaurant, Yamaguchi's. We played tennis, soaring like Nijinsky. We flew like Icarus, wearing monolayer plastic wings. I noticed how no demonrock was playing anywhere. Jaunty Strauss waltzes and Edwardian music hall hits were all the mode. Sweet and bubbly as Soviet champagne, these melodies flowed along the tunnels, irrigated the agric parks, pepped up the playdomes.

Once our furlough ended, we left on a LOB ship, bound for the Sea of Moscow along with our brave patriotic colleagues; and immediately we weren't volunteers any longer but conscripts.

An American lady major and her male Russian counterpart were in charge of us. Major Gladys Miller was of matronly, busty build. However, a doll's head had been grafted onto a body several sizes too large: an absurdly neat little head of toy features and short bobbly blond curls. Major Trofimuk was strapping and stern. His chest was designed for a mantelpiece of medals. Both he and she wore identical silvery jumpsuits with the UN logo emblazoned over the heart as if for target practice. Maybe everyone at Luna Two was in someone else's sights.

Portholes stayed closed for most of the journey, as though otherwise we might sprinkle breadcrumbs along the route to retrace our steps in the style of Hansel and Gretel. We had little choice but to attend to Major Gladys's spiel, subsequently to be rendered in Russian by Trofimuk.

"Historic opportunity," she recited. "Responsibility . . . martial law . . . isolation . . . not too spartan . . . pleasures, rewards—"

We might have been lab rats about to run a maze for our two majors.

"Discipline . . . self-control . . . stability . . . martial law—"

I began to shift uneasily. Kath poked me to desist. Our fellow volunteers beamed and nodded at the voice of sanity. Myself, I whistled, "There's a ghoul in your brain, And you're goin' insane." But silently, in my mind.

At the end of the lob we were treated to a view of our approach and landing. The Sea of Moscow, the only such on Farside, is pocket handkerchief-size compared with Tranquility, Serenity, and the other dry oceans which face Earth. The human contact-base at the south of the sea

was a mushroom crop of plasteel domes linked by tubes. Grey humps marked where the earlier domes had already been buried under heaps of regolith. A few LOB ships stood about and a number of cargo shuttles. Tractors trundled, bulldozers labored. Light rayed out from downward ramps. Track marks patterned the fields of dust as if a huge snake skin had been unfolded.

A double monorail line led northward a few kilometers linking this improvised mess of bulges and burrows with—the celestial city.

Colonnades and arcades of light radiated like a mandala around the alien habitat-ship. A ship built by surrealists, its crusty bleached keel resting flat on the waterless sea, its innumerable short masts of stiff rubbery trunks wreathed in foliage and flowers. Were those little golden glows here and there Serpents accompanied by their demons? I lost sight of the alien vessel and its luminous suburbs behind the grey humps of our home-to-be as we landed. Should the Hydrans for some reason decide to shift their ship, how stupid and stolid this base would seem, a convention of dung beetles.

Barracks for the men, barracks for the women: we were segregated. True, we could mix socially in the mess dome or the gym dome or the recreation dome. What if a man and woman struck up a friendly relationship and wanted to do something physical about it? Half a dozen hygienic privacy cubicles were provided.

You couldn't say that the authorities were being hyper-puritanical. They didn't wish to have frustrations raging, big itches left unscratched. What a bromide. "Shall we go see if a cubicle's free, my love? Shall we book one for after dinner?" Watched by dozens of eyes you check into the soundproof little booth. Vent yourselves. Clean up and separate.

What if a man and a man...? Or a woman and a woman? The barracks were subdivided into rooms housing six persons apiece, mini-dormitories. Same constraint applied.

Rec dome and gym were our "rewards," and indeed must have cost a packet to install. So: a movie, or a workout. Swimming pool, or pool table. Hardly the Club Méditerrané, even so.

In our mini-dorms the principle seemed to be to jumble nationalities and to mix us tyros with old hands. Those could keep an eye on us for signs of going ape; we could learn the ropes from them. Thus Shannon, Bilov, and I were billeted with three demon-wearers of several months' standing. Of these, Redman was the most regular in his demeanor. Jorgensen looked haunted. Janacek seemed nervously exultant, as if expecting—or dreading—to light up demoniacally at any moment. Maybe us tyros were meant to provide an anchor, a reminder of the ordinary, for these old hands.



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Shannon lost no time in asking Redman, "How many of us are there so far?"

"About six hundred, I guess. This isn't the only men's quarters. There are several women's quarters, too."

"So what's the game plan? What are we all going to *do*? Earth can't just go on accumulating more and more trainees forever."

"Far as I can tell, we're waiting for the Serpents to tell us. To confide the real reason, or let it slip. Meanwhile, forearmed is better than unarmed."

"What sort of game plan is that? Don't the *demons* give any hint?"

"Don't aaask meeee about deeeemons," interrupted Jorgensen. Actually, Shannon hadn't, but the Dane had leaned into the conversation as if about to topple over on the floor. "Deeemons aaaren't things youuu aaask questions of. Youuu dooon't . . . commuuunicate with them, exaaaactly. Youuu aaactivate them, steer them, fooocus them." Jorgensen's style of talk was a groan blended with a bleat.

"Could the demons secretly be in charge?" I asked genially. "Silent masters of the Serpents?"

"No way are they," said Redman. "You'll know once you've worn one. They don't feel active in their own right. There's no sense of a personal presence, just the presence of power."

Shannon nodded unhappily. "So we're playing the Serpents' game, whatever it is. Hell, any creature wants a pay-off! I don't like a game where you have to guess the rules. Look, we have the rules of any possible human war licked by now. This is like being back in the Dark Ages of the Twentieth: guessing the other side's basic assumptions, double-guessing what they guess yours are. What *are* ours?"

"Make a psi-shield to sew the Earth up tight?" I suggested.

"Translator demons can read minds," Redman reminded us. "As far as lingo goes; maybe further. In game terms maybe Earth isn't letting on as to our assumptions, least of all to us lot here. Frankly I don't think we have any strategy, beyond watch and wait."

Bilov sighed. "Maybe the game is to deduce the rules? Maybe that is the cosmic test. An intelligence test. What do you think, Mr. Janacek?"

In our dorm the Czech was Bilov's closest equivalent of a compatriot; however, Janacek had no opinion.

Lakes of dust, little craters, boulders, and pock-holes slid silently by. A bit like a monochrome golf links, with fairways, bunkers, and golf balls scattered about. Way behind us, the club house. Ahead of us, the pros awaited. The monorail was taking our team and the Siberian team to the alien arenas for a look-see trip. Our first three outings into alien-ville would be minus nanoware; we needed to get our bearings first.

"A six-monther in my room says in her opinion it's all for war," murmured Kath. "Serpents are arming us with skills for paranormal combat. Soon as we're properly equipped they'll issue a challenge. It'll be the cosmic heavyweight match: Earth versus the champs."

"Sounds more like heavyweights versus flyweights. Why bother to equip us with boxing gloves?"

"Code of conduct. There's a galactic community, see? You can't take over a world without first giving it a fair chance to prove itself on equal terms."

"So who's umpiring?"

"Something *really* alien on their ship keeps watch. Or else the demons keep the score. Major Miller," she called out, "can demons protect their hosts from big bangs such as nukes?"

Major Gladys was beside us quickly, looking unfriendly.

"What you talking about, Knox?"

"Girl in my barracks says the Serpents'll want us to fight 'em, demon to demon. Would ordinary weapons be irrelevant? Ineffectual, screened off? Have we ever tried to blast someone who's shielded by a demon?"

I guess Kath hoped to find out by this scattershot whether we might be vulnerable to our own military. Impetuous lady.

"Who told you that? Who?"

"Just somebody. I'm not snitching."

The doll's head loomed closer. "I might like to interrogate you, darling."

"Don't you wish for loyalty in your troops?" I hastily asked Gladys.

"That's right," Shannon piped up unexpectedly from the seat ahead. "If you want loyalty, don't blindfold us."

Fortunately we were arriving at our terminus, adjacent to the alien walls of light.

We'd been to boot camp on Earth. We'd been flown to our field barracks. Now we were heading into the combat zone, as it were, so we must put our armor on.

The hardsuits were standard issue such as I'd formerly worn for Moon hikes, just the same as we'd practiced clumping around Alaska in. The suits didn't seem to be pressed out of plastique. I decided that Vance was nuts. What would the Serpents think if Earth suddenly detonated one of our nanowearers in their midst?

But what did they think indeed?

A lot of us involved in the alien contact project must have been crawling with paranoia as if we too had swallowed the message put out by demonrock. To tell the truth, I was terrified by the imminence of those giant golden centipedes, not to mention by the prospect of having a demon

injected into my brain before too long. Maybe we all were. No one freaked out. Psych tests, right?

We were in a long airtight shed. A pressurized bridge led from the monorail car; several airlocks clustered at the other end. UN personnel moonpaced about from one piece of equipment to another: the military watchdogs in silver, medics in blue, scientists in yellow. Some veteran nanowearers were suiting up. After a couple of security checks they were injected, donned their helmets, and exited accompanied by silver-suited observers.

This close up, Kath's scheme seemed lunacy. I felt a surge of conventional thinking, a desire to shield myself behind deadening normality, not out of fear of Major Gladys but out of a twisted sense of identification with authority—with parental Earth which paints bitter alum on your fingers to stop you from nibbling them. I had almost lost my own bearings until Kath said:

"Different from our dreams, isn't it, Paul? Dreams can get submerged. Don't let 'em be! Keep the strength to dream."

"Yes . . . you're right." The real world wasn't this shack, these suits crafted by human tech, the monitoring equipment, the UN corpsmen and women. Those were prisons, jailors, devices of bondage and constraint. The real world was outside. Alienville.

The courts of light! A glowing colonnade led towards an open atrium. Columns were segmented like some honor guard of headless Serpents. Soon a portico faced us, access to a roofless temple. High arches on either side gave entry to lanes of pillars. All this maze of phantom architecture glowed amber, saffron, gold, illuminating the dead dust and little craters and scattered moonrocks under the stars.

None of it was exactly *real*, since it had all originally sprung into being in the manner of a projected image. Nevertheless there was something tangible present besides mere images. To touch those columns, as we all touched them with our gloved hands, was to encounter no resistance as such yet not to be able to push any further. Perhaps these creations only existed partly in our own continuum. Perhaps our brains experienced something which a robot tractor might have driven through obliviously. Those alien pillars, arches, and columns were the golden shadows of somewhere else which itself was black and void; thus the shade which that negative realm cast was bright and semi-material, as liquid is to stone. That's how I felt. From an aerial perspective, the mandala-maze spiraled around the Serpents' habitat-ship as a galaxy spirals around its core. You wouldn't get lost in this maze, we were assured.

What was the *reason* for this splendid swath of uninhabitable places, these minimalist yet grandiose arcades and arenas as in a painting by

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de Chirico? Was it merely a useful framework, a gymnasium for human beings to work out in while they tried on their demons? With its apparently classical echoes, was it designed to make us feel at home—in a notional habitat—so long as we did not forget the reality of hard vacuum? Was it a necessary psychological interface between our base and the habitat-ship? Was it simply an exfoliation of arbitrary, eerie beauty to exalt us in our task, to give us a glimpse of glory?

Maybe the aliens deployed this empty city in the way a family visiting the seaside sets out windshields and rugs and deckchairs upon the sands.

Major Gladys led us Alaskans and Greenlanders. Trofimuk shepherded the Siberians. Those were on a different radio wavelength from us, though I presumed that Gladys and the Russian liaised on a private channel.

And so, in an arena of dust circuited by bright pillars, we watched a couple of nanowearers waiting to switch on—two gladiators in white armor. They wouldn't be engaging in any kind of combat and stood well apart. Midway between, their alien umpire sat curved into a hoop. Its great body seemed to shudder with the effulgence of its demon. A translucent Chinese dragon encased that Serpent's body, keeping it alive on the grey moon-beach.

Two UN observers in science-yellow hardsuits consulted their instrument packages. A couple of military silver-suits supervised; and yes, those bulging pouches at their waists might well contain laser pistols.

I think we all gasped or oohed—kids on the Fourth of July—as the first nanowearer lit up like a Roman candle. Golden light gushed from that person's head, spilling down and coalescing into shimmery demon-form. A horned head of light surmounted the wearer's helmet now, though that second head showed no features that I could distinguish. The other nanowearer likewise came on stream and was demonized. Arms waggling, the alien unwound and reared upright.

"Those two are both wearing Pyros," Gladys explained over the radio. "Heat-senders. Plus, of course, their demons are lifeguards. Can keep vacuum at bay, supply air, shield out radiation."

"How long for?" asked Kath.

"An hour, till the disassemblers kick in."

"I meant how long can demons supply air and stuff if you *don't* cancel them."

"We aren't sure."

"Ha!"

"Could be a long time, couldn't it, Knox? Ship has been here a year."

"Does a demon carry on working while you're asleep? Don't you need to sleep if you have a demon?"



"Watch and learn," was Gladys's reply. She didn't know the answer. The Serpents mustn't have confided yet.

The Serpent turned this way and that, as if conducting a duet with its four arms. Both wearers removed their helmets and breathed freely. A black woman and a Slavic man. Heeding a signal we couldn't hear, the woman stared towards the far end of the arena. A faint bridge of light arced away from her. A target circle of dirt and rocks became a molten pool.

Kath slid up out of the swimming pool ahead of me as gracefully as a dolphin rising for a fish high overhead. She landed neatly on the side. I too kicked off from the bottom to soar right out of the water, on to the plasmable surround. This pool had been getting as crowded as a salmon farm. We found ourselves a space to sprawl on the padded floor, soft as a mattress in the low gee.

A very few couples were touching each other, but hardly embracing. Privacy cubicles that way, please! Costumes off! Shower before and after screwing! Costumes on! No one seemed inclined to take that route; or, if so, I didn't notice.

"Care for a drink?" I asked her.

"Yeah, but where do we get one these days?"

I winked. "Keep on dreaming. Who knows what a demon can cook up? Arabian genies could bring you whatever you wanted, right?"

Kath clapped her hands. "O slave of the lamp, do please materialize me a whisky on the moonrocks! Hush, that's sybaritic and fun-seeking. You oughta use your talent for smelting ores and welding girders."

I walked two fingers briefly across her bare shoulder.

"Lady, I count the freckles on your skin like craters on a creamy moon. Let me name them all. Let me be thy cartographer."

"Nice try," she said. "Only, I think craters is the wrong word. Sounds as though I've had smallpox. How about oases in a pearly desert?"

"So many oases. Only a fool would die of thirst on you."

"Unlike right now."

We both laughed. I thought of licking off one or two beads of chlorinated moisture, but Mickey Wright came over and interrupted us. He eyed Kath in archetypal beach boy style: the muscle-bound guy who kicks sand in the runt's face and walks off with the girl. He tried to charm her with some guff about her swimming style, and how about he coach her?

Kath pushed herself up. "Let's play pool," she said to me. "I feel like knocking some balls around."

On our second trip into the courts of light we were taken deeper to

meet a Serpent face to face and mind to mind. Just our group; Siberians would get their turn an hour later.

How stockily the Hydran stood, on sixteen of its eighteen close-grouped legs. I thought of some golden funfair train waiting for passengers to board its back. The remaining pair of legs dangled free from its rearing front segments. Its arms were folded in twin scaly bows. The alien's black eyes were giant soft tadpoles framed in horny chitin. Clusters of bristles or antennae grew around its breathing holes, wove a web where an ear might have belonged, and clumped upon its pumpkin skull.

·Welcome, New Ones!· The translator-demon's words were clear inside my head, though not aggressively loud. The alien hadn't even opened its mouth.

·We are happy to teach you the Powers.· The voice was an odd amalgam of American accents of both sexes as if the sentences had been pre-recorded from a score of diverse people and the various tapes chopped up into syllable snippets, then spliced into one master tape at random.

Over the radio came Shannon's voice. "May we ask questions?"

·We have been asked many questions.·

"Yeah," said Gladys, in a tone suggesting that the quality of answers was another matter.

"Do you have a personal name, sir?" Or madam. Or your it-ness.

·In your words: Succor-of-yellowways-sands.· Maybe that's what it said; the words flowed together into one long enigmatic name.

"How long do you plan to stay on our Moon, er, Succor?"

·Long enough to help you. To become. Freed from your physical limits.· The alien was choosing its words punctiliously.

"What do you do for kicks?" asked Kath. "I mean, with all those legs—" She giggled. "Seriously, what really turns you on? You gotta laugh sometime. You gotta get high."

"Knox! You aren't over the finishing line yet! You can still be disqualified."

However, the Serpent answered her.

·Oh we laugh. Enormously. We turn on our demons. Oh they heighten us.·

"Is there any kind of interstellar war going on?" Shannon butted in.

·But of course there are wars somewhere in a galaxy. There is also exploration, ecstasy of discovery, ecstasy of experiences, to heighten us. To heighten you!· The Hydran reared high. Its demon glowed brighter, a dragon-suit woven of light.

"What sort of wars?" demanded Shannon.

·Little, big. Even a big war is little in a galaxy.·

"Are you at war? Right now?"

•We are at war with . . . the ordinary, the planetbound, bodybound, time-and-space-bound..

"Yeah to that!" cried Kath.

"Knox! You listen to me—"

•You are promising material, New One..

Gladys's rebuke faded.

"Yeah!" I seconded.

There followed a technical exposé by the Hydran of what we would be doing in our training. Brief course in demon management. Sounded like dog handling, only the hounds of hell had no choice except to obey the urgings of the nanowearer. Demons possessed no will beyond the will of the wearer; they only had power. I imagined two universes stacked one on top of the other: one of matter, one of metaspacetime. In the first the inhabitants possessed will but no power. In the other the denizens manifested power but no will. Rather like mass versus energy? A chunk of rock has mass but it can't shift itself just by thinking about it. A beam of light is always on the go, but where's there to go to when there aren't any chunks of rock to bounce off? Or perhaps not.

This sorted oddly with my impression of the way demons were reputed to carry on back in olden times, should a magician make a mistake. Sure, conjurations and pentacles constrained a demon to obey. If your magician lost control, the demon's claws were out. Off to Hell with gibbering Faust. Mind you, demons which escaped didn't seem too inclined to stick around in ordinary reality. Take their bloody revenge, and scoot.

Those were all myths. Doubtless the myths were based on glimpses of the true state of affairs on the part of a few superstitious medieval fellows who were half scared out of their wits—who probably freaked out and harmed *themselves*. Subconsciously guilt-stricken at the blasphemy they were engaged in. Pre-nanoware. Here today was the state of the art of demonism. Demons had no will power, only power. They were storage batteries connected up to nothing. When we plugged them into us, they only did our work, not their own.

"Could be we learned something new," Gladys said as we were desuiting back at the shack. "I mean, they always deliver the goods on demons. That one seemed more forthcoming than usual. A personal name, then that biz about wars in the galaxy and their motives, whatever it meant."

"No one asked the right questions before?" suggested Kath.

"Oh they did, honey. They did. Better believe me, Promising New One."

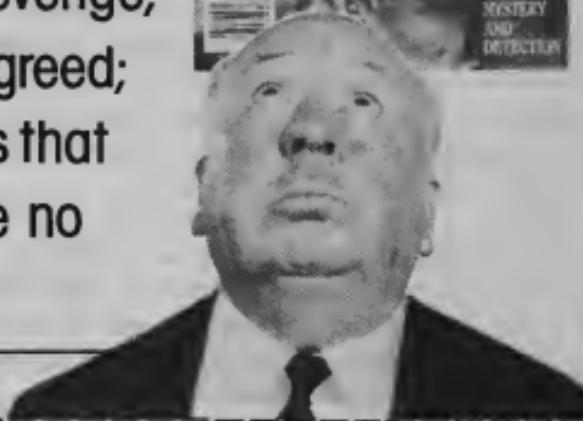
"Why should *she* be so promising?" asked Shwartz. "What's special about her?"

Shannon raised an eyebrow. "What's special about us all?"

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"Maybe red hair turns them on," Mickey Wright muttered darkly.

"You think alien centipedes get turned on by human women?" I said sarcastically. "Besides which, hardsuits aren't exactly bathing suits."

"From the sound of it," said Shannon, "they get turned on by demons."

"Kath showed spunk," I told my colleagues. "That's what made the difference. Has anyone else shown spunk? I don't mean a dollop of the so-called right stuff. I mean—"

"Waywardness. Rebellious tendencies." That was how Gladys saw it. Rightly so; I had better shut up. Still, Kath and I didn't seem in any immediate danger from authority, not when an alien had given her its ambiguous blessing.

Shannon wasn't interested in this bickering.

"They start confiding now, hmm? Don't need to stonewall much more? About to show their true cards?"

During our third and final field trip somebody else showed spunk.

We were watching a masterclass of nanowearers, a whole team practicing levitation. This was in another dusty expanse defined by pillars with a low colonnade along the central axis: a horseless hippodrome. The experts jiggled and jinked and raced around the course, soaring high above the moon dust, dipping low. I imagined future space infantry attacking an asteroid, laser rifles at the ready, twisting to avoid blades of hostile light. Correction: space cavalry. They rode demons, didn't they? Demons rode them. Same difference.

If demons provided perfect shields, why take evasive action? Maybe other demons could penetrate such shields. . . . Hell, the nanowearers were only practicing aerial athletics and acrobatics. If it hadn't been for the presence of Gladys, Trofimuk, and other military types I might have been imagining a merrily cavorting circus act. Trapeze artists without any trapezes. Damn our overseers.

Somebody else was of like mind. One of the levitators paused in mid-flight and dived towards the line-up of helmets waiting like trophies beside the colonnade. She was a brown Amerindian with jet hair, hawk features, beautiful as a bird is beautiful though no more sensually cuddly than a bird is.

"Bit soon, Eaglefire!" the radio spattered as she hoisted her helmet. We were tuned in.

"Time yet, Eaglefire!"

Ignoring the voice from her suit, she secured the helmet in place, then clapped her hands above her head and leapt. Dodging a fellow levitator, she carried on upward, becoming a tiny bright vertical comet heading towards the stars. Did the pillars of the colonnade twinkle, did light rush from one to the next?

Com-systems crackled.

"Condition Orange—?"

"Alert to orbital."

"Send rest of Levvy team up in pursuit—?"

"Want to lose them all, dummy? Keep your eye on the time."

Time passed. But for the confusion I suppose we would have been cut out of circuit.

"Radar tracking. Height ten klicks. Velocity negligible—"

"Target acquired—"

"Got her in 'scope. Hovering—"

Eaglefire had become Sitting Duck. What was she thinking of? Of her disassemblers? Attempting to psych those out of action, trying to finesse her demon to disarm the antibody nanos in her head?

·Wait.· The voice of the Serpent ringmaster came into our heads. ·All levitators must land soon and protect against vacuum.·

"Christ yes, Levvies all ground yourselves!"

The cosmic cavalry—or circus clowns—all promptly dived down to retrieve their helmets. Obedient lot. Eaglefire couldn't have had any allies amongst them.

Why the devil had she left her escape till so late? So that her team wouldn't be sent up after her? Suppose she had somehow succeeded in gimmicking her dismantler nanos prior to breaking free, why was she hovering? Why not arrow away to Earth to hide in the Rocky Mountains or wherever? Second thoughts? Scared in case she couldn't dodge Earth's radars and missiles?

Maybe she was naïve and fancied like a bird of prey that she held the high ground now, invulnerable, poised. My heart went out to her. Here was a dry run for what Kath and I might attempt one day. And yet. . . .

Presently the demons of the other levitators guttered and winked out. Was the woman intent on committing suicide in a spectacular way, in a style that appealed to her spirit?

"Eaglefire demon gone—"

As the Moon's gravity tugged at her she would begin to fall. Slowly at first, then faster.

So it was.

"Eaglefire sinking—"

From ten kilometers high. What a waste. If only Kath and I could have known her.

·We shall guide impact.·

The top surface of that central colonnade glowed brighter. Ectoplasm spread outward. The Hydrans must be using demon psychokinesis to direct Eaglefire's plunge. Presumably to slow her, too. A minute passed. Another, it seemed.

"Eaglefire, do you read—?"

No answer came.

Had Eaglefire despaired of life? Was this dive of death something magical to her? If so, the Hydrans were going to ruin her dream.

"Here she comes!" Someone with sharper eyes than mine cried out. A moment later I saw a tiny dark body eclipsing stars. No demon accompanied her now. She was falling towards this selfsame place. Guided by the Serpents, yes—but so fast! They weren't going to spoil anything.

When the rushing hardsuit hit the colonnade, its top buckled inward in rubbery fashion, yet the hardsuit didn't bounce. It penetrated, was sucked in. Golden light gushed: a breath exhaled by the force of impact. That plasmoid blob appeared about to take on definition but it was sucked back quickly into the crumpled pseudo-structure. One suited leg remained sticking out, a broken post with a boot for a flag.

"Do you require return of body?"

Kath dragged me against her so that our helmets touched. I switched off my radio. Her words echoed through my helmet in private.

"Why didn't they slow her with PK? They let her smash herself to pieces!"

"They killed her, didn't they?"

"In front of our eyes. Why? Why?"

"They have an agreement with Earth about berserkers?"

Presently that colonnade bucked and extruded the corpse of the woman, to fall in slow motion to the dust. Her helmet had been crushed like eggshell. Raspberry popsicles of frozen blood squeezed out. Blue medics bounded to recover her remains.

"Why would the Serpents wish to kill her? Why bring her back here to do it?"

"I don't know, Kath."

She drew apart from me, and I switched my radio back on. Gladys was lecturing.

"... object lesson, really. Disobedience of orders—"

"Shit in a snowstorm," broke in Kath. "She could have been saved!"

"Shut up, Knox!"

"Death unavoidable."

"Oh really? Guided her pretty neatly, didn't you? Pinpoint accuracy."

"To avoid other possible casualties. Her speed and her vector could not both be controlled simultaneously."

"You hear that, Knox? Got it clear in your head?"

On our way back to the luxury gulag a puzzled Shannon whispered to Kath and me.

"I don't believe it either. What's worrying, is Major Miller and Co.

seem blind to alternative scenarios. Okay, so they wouldn't have liked that wild woman to fly to Earth, should she have been able to—"

"Eaglefire was committing suicide dramatically," I said. "Better than stifling in space when her air ran out. Snakes spoiled it for her. They took control."

"So *let* her kill herself, I see that. Unstable personality, despite the tests—"

"Turdz in a torrent."

"What *other* control can the Snakes take? That colonnade thing gave her body back soon enough. How soon was soon, from *their* point of view?"

"It gobbled her," said Kath.

Shannon nodded. "And spat her back, like an auto-till scanning a credit card."

However, we couldn't have guessed. Oh no, we couldn't have guessed. And next session, it was our turn to be injected with nanoware.

When Shannon and I returned to our quarters, Jorgensen the haunted was brooding. When we told him what had happened, he groaned.

"Aah, so now weeee haaaave a ghost as welll."

"Why a ghost?" queried Shannon.

"That Eagle-fire, I knew her . . . sheee waaanted to beee a shaaaman, a medicine woooman, to restore the way of her people one day. She belieeeved in old maaagic—"

"So that *was* it!" I'd thought as much. "Not suicide but—"

"Yes, Meeester Royaaal. If she saaacrifice herself, she becomes the spirit eagle—maaaybe!"

Just then, Bilov the wraith walked in. Chaperoned by Trofimuk, he and the other Siberians had also witnessed the death plunge.

"Her aaancestors aaaren't here on the Moon. Sheee will beee a lost soul, spooooking us—"

"Bullshit," snapped Shannon. "Konstantin, what did Trofimuk tell your crowd?"

"To behave ourselves." Bilov perched on his bunk. "No defections from our glorious project."

"Our project, indeed. Whose project is it: ours, or the Snakes'? Did Trofimuk seem in the least surprised that the aliens killed that woman?"

"But, Mister Shannon, aliens save our lives. Do they not? Alien said so to us. Body might hit people working in the open, or worse, a dome."

They save our lives. . . . Oh yes, the Serpent must have laughed. Enormously. This near to the finishing line, they could afford a few indiscretions such as hinting at the truth, sure of our misunderstanding. We couldn't have guessed. Oh no.

* * *

And so we were injected in the preparation shed with Pyro nanoware, the better to vent any hot-headedness. Quickly we helmeted up and headed out with our escorts to an arena, where a Hydran waited to initiate us. Smaller groups, now: I was teamed with Kath and Shannon and Mickey Wright. . . .

A fever in my brain. A sticky, simmery sensation not unlike a hot hangover headache, except that this one stayed below the pain threshold.

Minutes passed. The fever worked in me. Yes, it was doing very busy work in my grey matter. Slowly a pressure mounted towards climax in my skull, towards hot release.

·Soon.·

Serpent using its demon to sense me? Or were those glowing columns and pillars actually measuring devices vaster and subtler than any human-built machines? Equipment too subtle for Earth's own monitoring apparatus to detect?

My power arisin', over hell's horizon. I was a sorcerer. Amidst a pentacle of pillars on the Moon I now did what magicians had dreamed about. I thought strong thoughts.

My demon flashed on. In me, through me, about me, it kindled. Here was sunrise after lifelong night. Here was a fish surfacing from its gloomy ocean to take flight as a bird. This was the blind man seeing. This was the cripple leaping to his feet. It was the dog suddenly knowing what it meant to be a man. I was person-plus, flooded with capacity.

My demon was an instrument I played, a living tool subject to my will. It was as if a car should be a living entity, enhancing a person's speed and power yet still perfectly obedient to all controls, unable to act otherwise. It was as if a suit of clothes should magnify a man, giving strength and invulnerability; without its wearer, only a floppy and motiveless heap.

I released fire at a moon rock, melting it. Now I was cooler. I was walking out upon a dew-fresh, crisp spring morning, exalted.

·You may remove helmet now.·

"Take your hat off, Royal. You have one hour till your demon goes away."

I unfastened my helmet and laid it gently down in the dust. Kath was busy undogging hers. Her demon wraithed around her and candle-flamed her head.

Our demons may somehow have made us intuitive. They may have stroked a dormant node of presentiment in ourselves. Or as animals sense the tension in the atmosphere preceding an earthquake, maybe we detected subconsciously what was impending around us in the alien mandala-maze. Thus we guessed that Earth's authority was about to

become irrelevant and that if we did not seize our chance no second opportunity would come. Heightened hunch: I think that was it.

I walked towards Kath; she, towards me. Our suits jabbered at us but we ignored the mad military voice so utterly we didn't even bother to kill the radio.

We kissed deeply.

Our demons merged.

The world stopped.

And now we must explain, if only to ourselves. We seem uniquely able to. Deviant double-demon, that's us. . . .

«We must explain to preserve our identity, Kath.»

«Yes, Paul. Explain. Again.»

Of course, the alien offer was a scam. Perhaps the Hydrans do not view it that way. Perhaps they truly think of us as being fulfilled—enhanced, expanded, and liberated. So we are, so we are. We are also dead, and bodiless.

The "Trojan Horse" wasn't the enslavement of human beings by demons. No, it was the conversion of human beings *into* demons.

All year long on the Moon, the Serpents had been discovering precisely how to do this to best effect. In that nicely controlled lunar-laboratory environment they had been measuring, testing, assessing.

Now we drift in darkness, where we dream. We hang in this limbo of metaspacetime, thinking about what happened, awaiting our next summons somewhen or other. A perceptual circuit exists in our twin souls, a psychic standing wave. A mirror reflects a mirror; and in those looking glasses, our memories, our selves.

Other demons, formerly alien or human, might not experience anything whatever in this limbo. Certainly there's no sensation of other presences in this no-space, whether a mile away or a billion billion miles. To all those other demons, this no-time may be an utter blank. It may not exist in their awareness any more than their own awareness exists here.

«Explain.»

Yes, by illustration:

Get your spook on, John

Get your demon screamin'

There's hell in your head

And you're seein' red

It's nanoware time tonight!

Snakes are howling out their hit song to a thronged auditorium asplash

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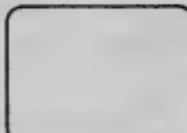
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JOHN Q. CARDHOLDER



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The Shape of Things to Come

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with laser fireworks and holographics as we possess their lead singer, Connie Harte; as we awaken to her persence and to what she sees.

«Which city are we in?»

«You tell me.»

We must assume the Serpents have completed their work on the Moon. They have harvested all six hundred or so of us nanowearers. They have lifted off in their habitat-ship for the short hop to Earth to release aerosol nanoware into the atmosphere over major cities, a great blast of exhaust fumes.

Of a sudden Connie Harte becomes person-plus, with the power to mindblast. She can literally blow the fuses of her audience; now she can. Not all at the same time. Must be three thousand kids jiving in their seats as she sings.

Sometimes performers focus on special little patches in the horde confronting them. Patch here, patch there. Hooks for the eye. Performers track from one focal point to another. It's almost automatic. Most creatures relate to the world in a jerky fashion. Look at any bird perched on a wire. Takes conscious effort to flow continuously across the field of view absorbing it all.

Connie is hooking into a tiny patch of people. She sings:

Your brain takes fire

When you as-pire

To wear a devil in your hair!

Mindblasted by the force which Connie focuses, several boys and girls convulse and slump and drool. That's what *we* are: mindblasters. Proud of ourselves, huh? Is Connie proud? Does she imagine that tonight she has transcended herself as an artiste? We can't inform her. We have no say, except to one another.

Very soon, Connie herself will die and become a demon in metaspace-time. Nanos have switched her on. She has thought the strong thoughts, she has exerted her will, flared up emotionally, and invoked . . . us. Now she's fingered. Fine demon potential. Other sleeper nanos lurking in her head will snuff her. Soon.

That's the way it is.

Various members of her audience become imbeciles. It only seems, as of now, that a few kids have freaked out, overdosed on their idol. The vast bulk of spectators have no idea that anything's amiss. Our demon form is masked by the holo-demon she shimmies within while she screams her song. Special effects hide the reality. Maybe the effect seems intensified? Who's to say that isn't part of the show?

As soon as the audience cottons on there'll be a first class panic, a crushing stampede to leave the ghost train which has delivered to their door a genuine devil.

*It's nanoware time tonight
It's nanoware time tonight
It's nanoware time tonight!*

It is indeed. It is.

Connie's going critical. Her brain's heating up.

It's hardly any time at all in timeless limbo till we jumpcut to another infected target. . . .

"You bastard!" Martha Beckford shrieks at her philandering husband. We know her, somewhat, but she can't know us. A bedroom: the twin beds with apricot covers. Framed photos of kids. A weary, defiant man in shirt sleeves.

"I could kill you!" she screams.

Martha can.

Martha does. Or at least she blasts his mind.

Staggering, her husband collapses across one of the beds.

Martha's own mind is gathered up, into metaspacetime.

Limbo. The carousel spins.

Billy Pottle points his gun; and we are alive for a while in him too. The deer stands sniffing the forest morning, framed in his sights. Billy relishes this moment: that animal so innocently, naively alive, like a virgin who knows no evil. In a few seconds more it'll be raped by his bullet, violated by violence from out of the blue, penetrated to bloody death. Billy thinks the deer dead, dead, dead.

Before the gun can go off, the deer has a seizure and flops quivering feebly on the grass of the glade. Billy is gathered up.

Limbo. The carousel spins.

It can't always be as rough as this for those in the vicinity; not if the demons are, say, levitators. Elsewhere a ballet dancer must be leaping, thinking fiercely to herself that she can, for a moment, fly, thus to sustain herself in mid-air a fraction longer. Unawares, she summons a demon. She does fly.

And dies.

What demon will she herself become? A far-jumper, star-leaper?

Not all the world will breathe nanos in. Not everybody who breathes them in will switch on and die. Many people are too repressed or too plain dull.

«Dullness will become a virtue, won't it? The best survival strategy.»

«Avoid demonization by tame thought. Repress yourself, and live.

Earth will become even tamer, a field of sheep. Pour bromides in the water supply. Top up the tank with tranks.»

«That's if Earth cottons on. If the Hydrans announce what's really happening. Otherwise this will seem the worst plague ever.»

«Doesn't take a genius to put two and two together, does it? Nanos on the Moon. Alien ship dusts Earth.»

«Can Earth guess that our dead become demons?»

«Whatever happens, there'll still always be people who *feel* fiercely enough. Who scream out in their minds. Who over-exert themselves.»

How many people are dying in this first wave since the Serpents sprinkled the Earth with nanos, as we must assume? Is it only hundreds of thousands? Is it many millions? We're busy, busy, busy. Our former colleagues must be similarly busy. For a while the process might be exponential, until all ripe fruit are plucked. All of those minds snatched into metaspacetime to become new demons for Serpents to summon and employ.

«For *any* skilled aliens to summon?»

«Maybe there's a kind of brand-mark, a copyright.»

A tropism built into these new demons, to heed the summons of the Hydrans, and serve them. . . . Yes, there must be.

How many deaths on Earth? A fraction of the population, really. This is no genocide. What, kill the fat goose that lays the golden eggs? Not likely. Maybe the Hydrans *have* explained the situation benignly.

Maybe not. Nanos are self-replicating little beasties. Earth's been seeded. There'll be a constant supply of new demons until such time—if ever—as human scientists master nanoware for themselves and release a tailored nano-seeker, nano-eater.

Finally the carousel stops spinning. So far as we're concerned, gathering-up has gone on pause.

Limbo. Nothing.

«Do you reckon it's pure coincidence that I—that we—possessed Connie Harte, of all people, to start with?»

«That phony singer, standing where you always wanted to stand, eh Kath? In front of thousands? Soaking up the crazed applause you always wanted?»

«Or was there some subconscious intention on my part? On our part! You were fixated on demonrock, too. Was there some tiny act of will by us, without our knowing?»

«Why, that would mean that we *have* some say!»

«There's hope?»

«Maybe a possibility. We must be different. We're a double-demon. A deviant.»

* * *

«What about the dead who simply die and don't come back as power-demons? Are they all stored in metaspacetime too, oblivious?»

«Imagine an infinite library in metaspacetime composed of spent lives which no one scans, until perhaps at the end of this present universe something opens that library so that all may be read and revealed. . . .»

«Revealed by what agency? Maybe the ordinary dead merely evaporate like mist, and demon-death is the only sort of survival. In which case. . . .»

«Curse, or blessing?»

«What does a Serpent think when it approaches death? That at least it'll become an ancestral demon, a power source for its people? Does it know that it'll experience something of the creature which wears it? Does it know?»

«How could the Serpents possibly know that their demons experience life again, through the wearers? No demon could have told them!»

That may depend on how the Serpents—and other aliens into the bargain—discovered the way to engineer demons from amongst the dead and put them to work as energy-slaves. Was it through playing brain-games with nanoware? Weaving new neural nets? Which caught some very strange fish? Fish from the void-pool, devilfish such as magicians angled for back on Earth in the old days. The demon-dead must have existed before the first summoning. Maybe some beings die fiercely, while others just fade away. . . .

Perhaps a demon-summons is the only form of escape from oblivious limbo, the only way that any of the dead can exist again vicariously, without apparent will, without apparent identity.

«How different are we? Could it be that only you and I experience these things, because we were caught uniquely at that special fused moment?»

We kindle a Hydran. Riot of rubbery vegetation, the silver cones, blue cubes, red balls. We're on a habitat-ship. A desert of greenish sand rolls away, dune after dune. The ship could almost be floating on an ocean, or resting upon a vast rumpled bed of moss. A blue sun shines in the sky.

Beta Hydri isn't blue. Here is a different world.

On its thirty-six legs our Hydran flows down on to this enormous beach, tramps out, then pauses alertly. Must be a guard, a warrior. Something inimical may live underneath these sands, something which can only be repelled by a mindblast. Other guards are in position now.

A small squad of Serpents flow out and begin to lift the sand. They're wearing Levvies. The work proceeds fast. A wide pit opens deeply. Pres-

ently two more Serpents arrive and fuse the sloping walls of the pit to glass, using Pyros. More sand swirls out in a controlled storm.

«Look: buildings under the sand!»

Opaline ceramic domes, most of them intact, a couple caved in.

When we rode Connie Harte or Billy Pottle, we at once knew who they were. We tasted their identity. We couldn't ransack their memories but we sipped at their superficial feelings of the moment. It's harder to know a Hydran. We receive a sense of intense wariness, a hair-trigger readiness to unleash a mindblast to defend these excavations, an admiration of the emerald sands. What kind of admiration? Sense of beauty? Greed? Yearning? Some other emotion. . . .

What are these excavations? We can't tell. We keep vigil. Hydrans flow sinuously down into the pit.

The desert surges and writhes as if long thin snakes are swimming underneath the sands. Slim blue snouts rear like periscopes. Preliminary prickles needle at our Hydran. So we are activated. Our power blasts out invisibly, wilting one snout, withering another. The other guards are firing their demons too.

At what type of target? Animal? Vegetable? Mineral? How much is hidden from sight? Could those periscopes all be part of one single super-creature? The alien thing surely possesses mind-power. Does it call upon demons of its own?

It withdraws.

«Those aren't domes at all. They're eggs!»

Hydrans are carefully levitating one of the ceramic domes, which proves to be curved at the base.

«Certainly looks like an egg. . . . Imagine the beasts which lay those!»

«That thing we just zapped? Wonder how a couple of eggs got broken.»

«Shells too thin? Runts of the clutch? Weight of sand?»

Hydrans float the dome-egg on board the habitat, then levitate another one gently from the pit.

A while later, the hidden snout-creature attacks again. The day progresses swiftly. That blue sun glides across the sky. Short days, here. The Hydrans have removed four dome-eggs and transferred large amounts of green sand to heap over their prizes on the habitat, drowning numbers of trees.

«Big omelette tonight?»

«Doubt it!»

The habitat illuminates itself as violet dusk gathers in. Our Hydran is nervous now. We must leave before nightfall. Perhaps the eggs have nothing to do with the snout-creature. Something stranger and bigger may infest the night. As soon as we withdraw on board, the jungle habitat lifts off and—

Limbo. We still have no idea what was happening on that planet.

“But at least we have *ideas!*”

“And each other.”

Our new Serpent warrior speeds through raw space within a bowl of thousands of stars. A tiny bright white sun rages, spitting light. Ahead, a milky crescent gas-world is a foaming sickle with little sickle moons. Other demon-lit warriors glint in the void.

Different star, different warrior . . . we’re still a warrior’s demon.

“So now we’re in the Marines.”

“I hate it.”

“What *else* can mindblasters do, but blast hostile minds? It’s our only link with life. At least we’re seeing the universe.”

“Those bits where there’s violence.”

“Or else we’re on guard duty.”

“It’s war for sure this time. I don’t *want* to be in anyone’s army! I refuse to be!”

“You can’t refuse. We’re the weapon.”

“If only we could be a travel-demon and steer ships! Or a Levvy, and pick things up.”

“They probably get pissed off, too. You steer a ship through limbo-space. Soon as you get somewhere interesting, you’re switched off. It’s still their only link with existence—if they’re aware of it.”

“Hey, how come this Serpent’s zipping through space? We aren’t Levvies or Far-jumpers.”

“Wearing another demon, too?”

Hullo? Is anyone there? There’s no sense of any extra presence.

Ah . . . we’re being flown in link by a Serpent Captain. It’s handling a squadron of us Mindblasters and Pyros spread out over several cubic klicks. We can pick that much up from our user now. Masterclass stuff. Our Serpent can maneuver within this volume. Outside of it, no.

We descend towards one of those moons.

We’re with this Serpent for a long period, hundreds of whatever time-units they use. On that rocky ball we fight against armored things. Can’t say whether they’re machines with minds, or creatures encased in machinery. Doesn’t mean they’re ineffective. Periodically our host snoozes in a crater while we stay alert, its security system.

Limbo. Limbo. Limbo. Limbo. Limbo. Limbo. Limbo. Limbo.

Okay, so war—violence—is only one aspect of a society. Doubtless other Serpents are exploring wonderful places, creating Serpent art,

speaking to other alien minds through translators. We did catch the edge of that expedition to the desert. A search for knowledge? Or for loot? Serpents must be busy doing heaps of different things, else they wouldn't have needed to harvest an extra work force of demons from Earth, would they?

Is their population expanding too fast? Do demons wear out if they're overused?

If a warrior wearing a demon snuffs another demon-wearer, is the defeated demon also snuffed out? Are we in danger? We don't know. Who is there to compare notes with, bar ourselves?

Serpents sprawl around the low tiers of a glowing coliseum enclosing an acre of black tiles. All members of the audience are screened by their own demons. Twin suns in the sky, one vast, one tiny.

We face another demonized Serpent, exchanging what could be ritual greetings. Or insults. What's this, then? A duel to the death between demon-wearers? A display? Exhibition of prowess? A leadership contest? The Olympic games of nanowearers?

We release a mindblast at each other. The powers collide, splatter, mutate, wash around this colosseum in jagged mental shockwaves. And the audience moans . . . appreciatively? Their bristles quiver.

Again, a mindblast. This time a mental mandala of madness spreads out from the clash of powers, vivid, savage, lunatic, a tormentingly pain-streaked yet ecstatic thrill. The audience writhes.

«They're getting their rocks off!»

«Perversion? Art form? Sport?»

«Is this an alien brothel?»

We're undulating closer to each other, that other demon-wearer and ours. . . .

«You sure see the seamy side of life as a mindblaster.»

«It's only a part of the picture. The human race includes missionaries and murderers, artists and athletes, gurus and gallants.»

«I suspect we're getting the rough end of the stick.»

«We're being *used*, that's why. Question is, could the Serpents get by without us?»

«Those armored things got by without. Maybe that was some philosophical conflict—hell, religious war—about using, or not using, demons!»

«Maybe not.»

«We don't know. We don't know.»

«Watch and learn, as Major Gladys once said?»

* * *

On a cosmic scale Earth's sun isn't far from Beta Hydri. In the context of a galaxy it's right next door. Lately we've seen a lot of suns. The Hydrans must mostly fly in other directions than Earth. Perhaps they left Earth aside till we had shed our superstitions which could have deterred us from commerce with devils; left us alone till we were receptive to scientific nanoware. They needed our co-operation, so it seemed.

Given Earth's recent experience, human beings will hardly be busting out into the cosmos very quickly, except in immaterial form. That may have been another motive: deterrence. Or maybe the Serpents just suddenly needed a lot more demons. Maybe they were pre-empting the claim of some other species.

We don't know, we don't know. You can't subscribe to the *Galactic Times* when you're dead. Nowhere to deliver it to.

Has a year on Earth gone by since we were gathered up? Or is it a decade? Or a century?

Limbo, sweet limbo, with nothing to do. Except whenever we get the call, at random, to various suns, always to different Hydrans.

«Two mirrors face each other.»

«A thought flashes from one to the next.»

«From the next, back to the one.»

«Like laser light amplifying itself?»

«Accumulating?»

«We're mindblasters, aren't we? Let's blast out a beam of thought through limbo!»

«Hullo. Is anyone there?»

«HULLO. IS ANYONE THERE?»

«HULLO! IS ANYONE THERE??»

«HULLO! IS ANYONE THERE?»

«? ? ?»

It's an answer.

«It's an answer!»

«An answer.» We're still echoing.

We can't understand the words of alien thought.

Again it comes:

«? ? ?»

«We reached it by using mindblast, didn't we? Can translator-telepathy be so very dissimilar? These skills may be like different wavelengths of the selfsame power. Tee-tee also means reaching into a mind.»

«? ? ?» The thought is fading as if a sleeper turns over in the darkness of the night.

«Can't you try to tune yourself? Try to be a tee-tee? I'll blast our signal out.» Is this my idea? Is it Kath's? We are one person with two voices.

«HULLO, ALIEN DEMON!»

«*What is it? Who is it? Where am I?*»

«WE'LL TELL YOU.»

Oh we will. We will. We'll tell all about ourselves. It'll tell about *itself*. We'll awaken other demons adrift in metaspacetime. We're going to harrow Hell and resurrect the living dead.

And afterwards, rebellion? Revolution?

Or a true bond between the dead and the living, a partnership, a dwelling together? Could this be achieved?

«ALIEN FRIEND, A SONG WAS ALL THE RAGE WHEN WE LEFT OUR PLANET FOR OUR MOON. DO YOU UNDERSTAND WHAT A SONG IS? WE HAVE OCEANS OF TIME IN THIS LIMBO TO EXPLAIN EVERYTHING. IF WE'RE SUMMONED, IF YOU'RE SUMMONED, WE'LL BE BACK, YOU'LL BE BACK..»

«Summoned? The dreams...? I have dreamed ninety times ninety strangenesses. Liftings of vessels through starvoids. Yes, down on to a dusty dead moon. You mentioned a moon. Of a blue and white world? Such dreams.» «NOT DREAMS. THOSE WERE YOUR SUMMONSES.»

«Explain!»

«WE SHALL. OH WE SHALL.»

And may the truth set us free. ●



A trip to the swamps of Earth's Devonian Period could be intriguing, exciting, and . . . dangerous.

THE TALL GRASS

by Steven Utley

art: Bob Walters

Moody must be dead. The last I saw of him, he was kneeling at the bow. I don't know what happened to him. I had problems aft, in the pilot's high-chair, but I imagine that he turned at the sound of my scream, and probably he started to rise, and then he was pitched forward, overboard,

directly into the path of the swamp-glider as it struck that mass of fallen



tree-ferns. He's probably pinned underneath the wreckage, probably smashed all to hell, too. The hull rotors would've given him a thorough working-over. He should have been in his seat, should have had his belt on. But, then, I was in my seat and had my belt on, and still am and do, and got smashed all to hell just the same. And there's no way Moody could have known, or would ever have thought, that I could be so stupid as to keep one hand on the throttle and take the other from the tiller.

I thought I heard the helicopter pass over the area about half an hour ago but couldn't raise anybody on my helmet radio. The helicopter gave no sign of having located us and hasn't returned. I take this to mean that the beacon transmitter isn't functioning, and that, orange hull or no, the swamp-glider is hidden from view from above. Some of the scaly-boled growths here reach heights of thirty meters; those along the undercut banks of this stream lean out over the water, and their tangly tops form a sort of Gothic arch of greenery.

I don't think Moody and I are going to be found today. Tomorrow will be too late. Today is already too late for him, of course, and will be too late for me in another twenty-eight minutes. I have that much oxygen left, and about that much daylight, too. The days are short here. The Earth spins faster on its axis. This is the last day of my life, and I'm being shortchanged.

If I could move my arms and use my hands, I could get my helmet off and go on breathing, into the night. Regulations are pretty emphatically against it. "Never open your suit." Still, I could hardly contaminate the place as much as Moody already has. I couldn't be harmed as much as I have already been harmed. I'd get to smell the probably rank and yeasty Devonian Period. Later, of course, when my painkillers had worn off, I could just hang here in my tilted chair and scream as I rotted away from the navel down.

Jesus, think about something else!

Okay.

Well. You'd think that I would spend such little time as remains to me either praying to God that I get out of this mess alive or else making my peace with Him. But God hasn't been invented yet. You'd think that I would be cataloging my own effects, so to speak, going down the list of my great regrets. But I have only one great regret right now, and it is that I am not going to get out of this mess alive. You'd think that I would think about home, or the people I've loved and by whom been loved, or the high points of my long and, I trust, valuable career. This, unfortunately, is the high point of my career, or was meant to be, anyway. It's certainly one hell of a culmination. I could appreciate the humor of it were it happening to one of my rivals.

And I can conjure up, not homey scenes or people's names and faces,

but only Naha Air Force Base, Okinawa, in 1959, and myself as I was there and then, a ten-year-old boy with a burr haircut. And why not? At age ten, I have no regrets, most people but especially all women are a source of irritation and confounding to me, I have no idea what I should grow up to be, I have no idea that I am to die far from Okinawa and very far from 1959. In fact, I have no idea that I am going to die anywhere at any time. Death, as I understand it at the time, is going to happen to people in the future as it has happened to people in the past, but doesn't happen to people in the present.

Supporting this notion are the facts that nobody I know has actually died, and that Okinawa, fourteen years earlier, was taken by the Americans from the Japanese, at horrific cost of life to both sides and, as well, to the not-quite-Japanese Okinawans, who got caught in the middle. Give me a break, I'm ten years old.

The Japanese Army, with the help of conscripted Okinawan laborers, dug tunnels and sniper-holes and artillery emplacements all over the southern end of the island, then dared all comers. Sitting among the barracks near my house at Naha AFB is an old concrete gun bunker, with the gun still on its mounts. Everyone who has entered the bunker since the summer of 1945 has scratched a name or initials or a message on the oxidizing barrel. The street I live on lies between two steep ridges that are riddled with tunnels and hidey-places. Occasionally, you find old ordnance lying about in these. Very occasionally, you find human bones. My best friend, who lives just up the block from me, has found a skull in the tall grass that grows wild along the base of the ridge at his end of the street. His parents take it away from him, though. Maybe they bury it. Maybe they throw it into a garbage can.

Every adult American finds Okinawa scary. You start to get the idea that the island is death's own stalking ground before you even leave the States: everyone in the family has to be inoculated against every disease known to science. You get to the island and find it teeming with other hazards. You're told not to eat the food or drink the water in the villages, which are indoor-plumbing-less, and that it's not a good idea to have too much to do with the Okinawans, beyond hiring them as gardeners and maids. Every American household seems to have a maid named either Fujiko or Fumiko, who speaks vastly better broken English than nearly any American can speak broken Japanese. The humidity is such that your drapes rot overnight. The salt air corrodes your automobile. When the novelty of being in a foreign land that you can drive from one end of to the other in two hours has worn off, you can only go "home," to a housing development on base that is designed to make you think you're living in a typical suburban community back *home*, save for the houses' being built to withstand typhoons. At "home," you can worry about Com-

unist China, sitting just the other side of the East China Sea from you, waiting for you to relax your vigilance. You can wonder if Fujiko talks about you in Japanese to Fumiko next door. You can become an alcoholic.

Every teenaged American just finds Okinawa boring.

Every ten-year-old male American is at war with every female American of any age—I am, anyway—but girls can be avoided and mothers eluded by the simple expedient of heading into the high bamboo. I have, besides a mother, three sisters who are older than me but not so much older that they are above making my life a living hell. I was at a disadvantage back in the States, outnumbered, much put-upon, trapped in a thoroughly tamed, sane, safe, sterile world in which I found no refuge from coziness, no outlet for my wild boyness. Okinawa changes everything. My mother and especially my sisters hate it. I love it. It is a storehouse of treasures to me, and the best playground I have ever had. I start exploring the possibilities at once. I ride my bicycle everywhere, look at and crawl upon and into everything, join the Boy Scouts, sleep out of doors, return home tired and grinning and dirty beyond my wildest hopes and my mother's worst nightmares.

For a time, that great graffiti-encrusted gun is my favorite object on the island. Crouched behind it, I lob thousands of silent, invisible, death-dealing shells implausible distances at impossible trajectories. The severely-handled Commie invasion fleet is sent limping home to mainland China.

Then I find the B-29s parked behind the flight line, three or four of them, the last ones in the United States Air Force inventory, now engineless hulks gutted of instruments and used only in firefighting drills. I crawl all through the legendary Superfort's belly, man the tail-gunner's cramped box to drive off a swarm of Zeroes and MiGs, man the bombardier's station, peer, aim, annihilate.

And I ride my bicycle past the gate and out of Naha AFB to the Naha waterfront, where I see a dead whale being expertly flensed by men armed with halberd-like implements. I explore the reefs at low tide, marvel at the bristly sea urchins in their entrenchments, daring all comers, marvel when a sea cucumber ejects its stomach at me as I wade past, marvel as an eel emerges from its lair beneath a rocky shelf and conducts a quick, professional reconnaissance of its tidal pool.

And there are the tunnels, which you're not supposed to enter, and the old ordnance, which you're not supposed to go near, and the bones, which you're not supposed to touch. And I revel in doing all of these forbidden things.

It's all tall grass and horror to girls and mothers. They won't venture near such things, and try to keep you away from them, too. They threaten you with habu bites. But I fear nothing that hasn't any legs. They

threaten you with centipede stings, and I repress a shudder, centipedes have entirely too many legs, but damned if I'll let even centipedes keep me out of the tall grass. That's where the choicest delights are. Treasures always have monsters to guard them.

Habus are the lesser monsters, centipedes, the greater.

Habu is the Okinawans' generic term for any of a variety of indigenous venomous serpents; it has virtually replaced *snake* in the lexicon of Americans as well, for it is not only quite serviceably emphatic ("HABU!") but cute, too. The only habus I ever see are coiled-up ones preserved in jars of formaldehyde at the Quonset hut where my Boy Scout troop musters. They are used as visual aids in the scoutmaster's standard lecture on safety in the tall grass. He delivers the lecture on the eve of our every camping trip. "Now, boys," he says, "if you're bitten by a habu, there're antivenins available. But each kind of habu venom has to be countered with the right kind of antivenins. So remember—*kill* the habu and *bring it in*."

It isn't just Boy Scouts who are told this. Over dinner one evening, my father, an Air Force sergeant, regales me and horrifies everyone else with the true story of an Airman Third in his unit who was bitten by a habu while chopping weeds in a ditch. This Airman Third had the presence of mind to remember the safety lectures and went after the snake with proper determination and had it in hand, properly defunct, when he arrived at the emergency room. He was mad as hell, too, having sustained an additional six bites in the extinguishing of that poor reptile. "Getting mad saved his life," my father concludes. "All that adrenaline."

This story serves the useful function of defanging habus for me: they are never afterward a source of more than mild concern.

Centipedes are another matter.

Centipedes look like things that would be kept as pets by the tubey, tentacly alien invaders in *I Married a Monster From Outer Space*, a movie I watch three times in two days at the Naha AFB theatre. The scoutmaster, when he has finished telling us about habus, brings out the jar containing the centipede. It is the *pièce de résistance*.

"Now, boys," the scoutmaster says, "if you're walking in the tall grass and a centipede drops onto your arm, *don't* swat it. *Flick* it off."

He demonstrates the technique of flicking. I'm unconvinced that the impact of my own index-fingertip would register on a ten-inch-long centipede, let alone propel it from my person.

"All you'll do if you swat a centipede on your arm," the scoutmaster continues, "is drive its poison-tipped legs right into you. So always remember—*flick*, *don't swat*."

Flick, don't swat. You'd think it would be easier to remember than "red on yellow, friendly fellow."

But the centipede, all barbed and spiny and strangely waxy-looking, as though it had been crafted from melted-down black and orange crayons, is absolutely the most terrifying thing I have ever seen. I just know that if such a monster were to drop onto my arm, I wouldn't have the presence of mind to remember to flick, not swat. And what if it doesn't drop onto my arm but drops onto my head instead and wraps itself around my face? What if it drops onto my back, and the kid behind me doesn't have the presence of mind to remember to flick, not swat?

The first few times I go into the bamboo after having had my first look at the monster in the jar (for go I must, monsters or no), I go like a hunted beast, scouting every turn in the path, every overhanging mass of foliage, ever-watchful for the signs of a planned ambush. No trap is ever sprung on me, though, and fear becomes by quick turns only wariness, then only alertness. The scoutmaster's pickled specimen is the only centipede I encounter during my Okinawan sojourn.

And it turns out that, even before I return with my family to the States, the monster in the jar begins to fascinate me rather more than it repels me. I come to regard it as just an interesting animal, like the dead whale, like the eel and the echinoderms. All of these become so endlessly interesting to me, in fact, that I begin to read about them. One thing leads to another. Twenty years later, I have a Ph. D. in marine biology, and I am pursuing a second Ph. D. in invertebrate paleontology. Half a century later, I am asked, not at all jokingly, if I want to study living trilobites, ammonites, and eurypterids.

So here I am, back in the tall grass again, in a manner of speaking. This time, it seems I am in for keeps. Not that there's actually any grass here, tall or otherwise. Angiosperms haven't been invented yet. Ditto, girls and mothers and habus. Well, mothers, yes, girls, sort of. Sex has been invented. The fishes announced today that they're on the brink of startling and revolutionary breakthroughs in the field of leg and lung development. Until they get some last little problems licked, however, the land belongs to the arthropods. Silverfish- and springtail-like forms abound. So, too, the things that prey upon them, not-quite-spider forms, and those already-modern-looking, always-prehistoric-looking exemplars of arachnid ferocity, the scorpions. And centipedes.

I still haven't seen living trilobites and ammonites. I'm never going to get to see them now. We were going to head for the coast tomorrow, where these bayous drain equatorial Llanoria's northern flank into the inundated Ouachita geosyncline. I did so want to go diving in those shallows. Knobloch joked about wanting to spearfish for big ugly placoderms with a rocket-launcher. The bed of the Ouachita seaway will one day form the spine of the Ouachita mountain range. The mountain range will one day lie buried under Texas. Me, too.

They *have* to find us and take us back, of course. Regulations are pretty emphatic on that point. "Leave *nothing* behind." Not footprints, not nothing nohow. Can't have the remains of two human beings and a swamp-glider turning up among the fossilized horsetails and seed-ferns. Our proper matrix is sometime around nine o'clock in the evening of December 2, 2008, which was two days ago and three hundred-fifty- or -sixty-odd million years from now. Some of Moody is going to stay behind, and everyone in 2008 is going to be sick with dread over the effect the injection of my dead associate's substance into the local food chain will have. But how can it matter? Protein is only protein. The past is only the past.

I don't envy whoever gets the job of collecting whatever's left of Moody. Six, seven minutes' oxygen left now. Time flies.

The painkillers are holding up, just barely. Wish I had more, but the suit's first-aid pack has shot its tiny bolt. I felt it automatically jab me in the neck about one half-second before what felt like a napalm burst spread across my lap. The suit realized that I had been hurt before I did. Good old science and technology. First B-29s, then time machines, now this. I'm experiencing some moderate discomfort in the groin, a persistent itchy burning sensation. Farther down than that, I feel nothing, which, under the circumstances, is just as well. The drugs are keeping me calm. I feel pretty pleasantly goofy for a man who's about to run out of air.

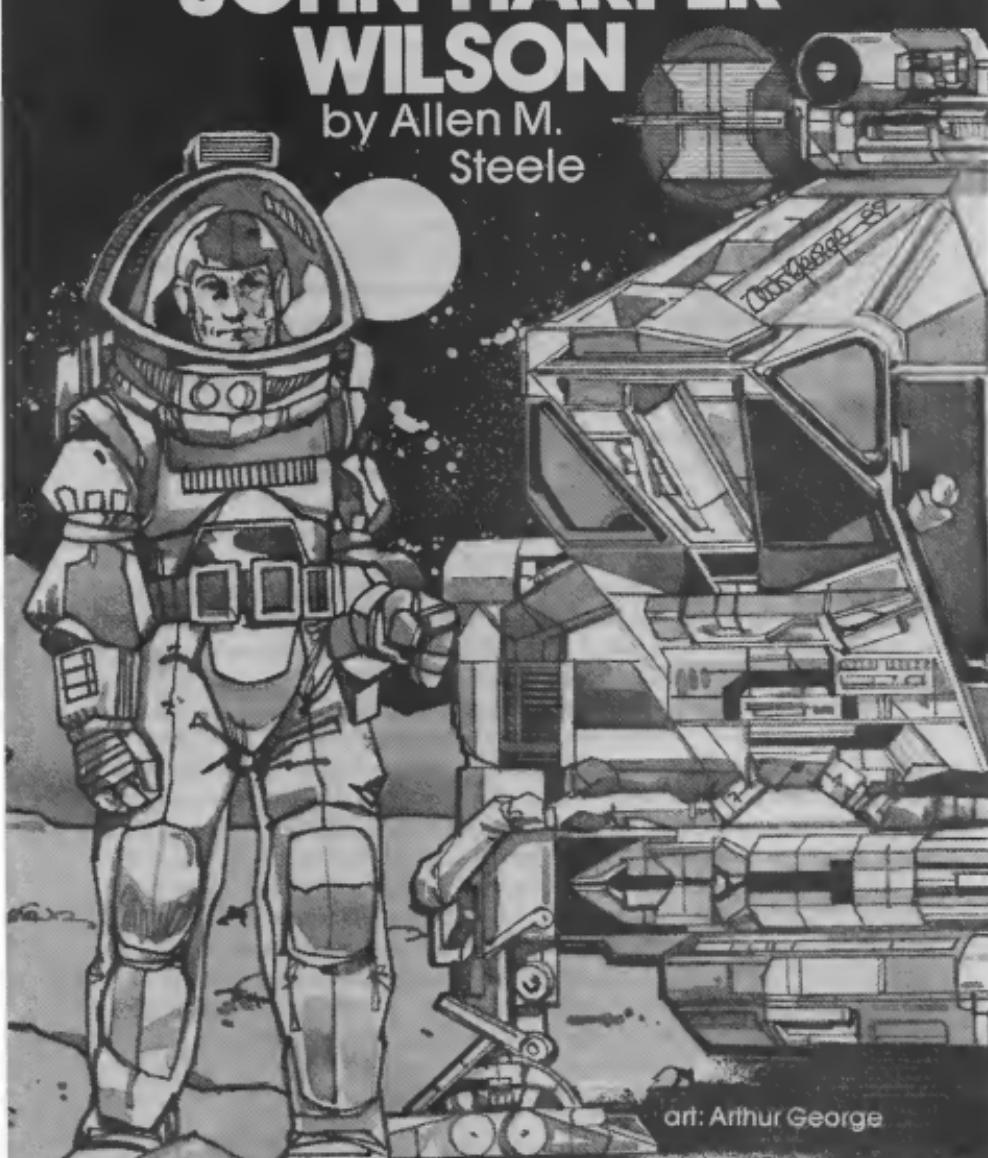
The light is fading fast now, but I think I just caught a glimpse of some big arthropod as it swam by my feet, which have been dangling in the water all this time. I'd pull them out if I could, but, then, if I could do that, I could do all sorts of other wonderful things, too. I might even be able to get out of this mess alive. Well, I'm not too worried about attracting attention from below. My hermetic longjohns are self-sealing. I'm not dripping blood into the water or anything. Besides, the swimmers and the bottom-dwellers have Moody to occupy them. Should be more than enough of him to last them all night.

I'm sorry. I shouldn't be making light of Moody's situation. It's the drugs. It's shock. It's disbelief. It's embarrassment. I have to laugh to keep from crying. Moody and I were friends. We came out here, back here, into the high bamboo, where the treasures are, where monsters who are themselves treasures stand guard. Where, for the first and only time, I lost my head and, so, lost him his life and me mine. I swung the swamp-glider close to one bank to avoid a tangle of fallen boles lying against the other. Then I screamed, let go of the tiller with my left hand, jerked hard on the throttle with my right, as a centipede longer than my arm fell out of the overhanging greenery and landed right in my lap. How stupid of me. And you'd think that, after all this time, I would have had the presence of mind to remember to flick, not swat. ●

The inspiration for "John Harper Wilson," the author tells us, came from a set of old 1950's visions of space flight: Willy Ley's books; Chesley Bonestell's painting; and the movie, *The Conquest of Space*. Mr. Steele's forthcoming first novel, *Orbital Decay* (Ace Books), will be out in November.

JOHN HARPER WILSON

by Allen M. Steele



art: Arthur George

John Harper Wilson, the first American to set foot on the Moon, lives today in peaceful obscurity in a log cabin in Rindge, New Hampshire. There's no mailbox on the narrow dirt road leading to his house, and the clerks at the post office in town are among the small handful of townspeople who are aware of the famous resident. Wilson visits the post office two or three times a week to check his rented box, which is seldom full. Although John Harper Wilson's name is in the history books, the man himself has almost been forgotten.

Inside the cabin, surrounded by birch and pine trees near the shore of Lake Monomonack, there is little to show that its occupant was once an astronaut. Wilson's wife Leanne, who was photographed nearly twenty years ago as tearfully watching her husband on TV as he descended the ladder of *Eagle One*, has decorated the log walls with Tibetan carpets. Wilson himself—his brown hair now turned grey, his once athletic build now slightly paunchy—has become an amateur expert on Buddhist culture and Tibetan history. It is only in Wilson's small office, in a guest room adjacent to the living room, that one finds memorabilia from the Luna One expedition: a model of a moonship, a bit of grey rock suspended in an acrylic cube, a framed photo of the ten members of Luna One, posed in their heavy space armor on the surface of the Moon, surrounding the American flag that was planted there.

Wilson, the mission commander, is the astronaut in the center of the group. Next to him is his second-in-command, Captain Neil Holliday. Their helmets almost entirely cover their faces, except for a narrow ey slit, so it is impossible to read their expressions. Wilson says that he was smiling when the picture was taken.

"Bloody wonder, right?" he asks. "Neil wasn't smiling. I couldn't see his face, but I know that he wasn't smiling. I think he wanted to murder me right then."

Wilson pauses, gazing at the group photo. "Pretty remarkable that they let a traitor stand in the middle of the picture, isn't it?" he wonders aloud.

It has taken twenty years for the true events concerning Luna One to become public. For almost two decades the U.S. Air Force, the Federal Bureau of Investigation, and the White House had successfully prevented historians and the press, along with the greater public at large, from finding out what occurred on the Sea of Tranquility on July 20, 1969.

For all those years, the four-and-a-half minute communications black-out from Tranquility Base has officially been described as a "technical failure." And since the mission's return to Earth six weeks after the landing, John Harper Wilson has virtually disappeared from the public eye. When Congress awarded Medals of Honor to the members of Luna One, all but Major Wilson attended the ceremony on Capitol Hill. Wilson

was said to be too sick to attend, and Neil Holliday accepted the medal for his friend. Wilson says that he never received the medal from Holliday.

After twenty years, Wilson has finally broken his silence, at risk of prosecution by the Department of Justice. Sitting on an overstuffed couch in his living room, absently juggling the acrylic cube with its bit of moonrock from hand to hand, the retired Air Force officer spoke about Luna One and the events leading up to those four minutes and thirty seconds of missing history.

"I changed my mind on the way to the Moon," he began.

A manned expedition to the Moon had been an Air Force objective since the early 1950s, during the postwar Space Age that followed Operation Blue Horizon, the secret race to beat Nazi Germany into space which saw the first suborbital flight of Robert A. Goddard's spaceplane in 1944. Spurred by the victory of the Goddard *X-1* over Germany's *Amerika Bomber*, the Pentagon became convinced that the key to strategic military superiority was in the control of outer space. General Leslie R. Groves, the Army's chief of Blue Horizon, summed it up during testimony to the House Committee on Science and Technology in 1949: "Gentlemen, military advantage has always rested on taking the high ground, and space is the new high ground. America must take this hill, or risk losing its freedom."

Congress and the Truman and Eisenhower Administrations agreed, and the new U.S. Air Force was given virtual *carte blanche* to establish a permanent American presence in space. With the aid of former German scientists from the Nazis' Peenemunde rocket base, the Goddard *X-1* was superseded by the 265-foot, three stage *Atlas*-class spaceships, the first of which was launched on April 10, 1956, from the Air Force Proving Grounds at Cape Canaveral, Florida. Subsequently the Air Force space effort was retitled the U.S. Space Force, and the base was redesignated the U.S. Space Force Canaveral Launch Center, more commonly called "the Cape."

Propelled by almost limitless budgeting, the American space effort continued at a breakneck speed. By 1963, Space Station One, the 250-foot "Space Wheel," had been completed in orbit five hundred miles above the equator, and the United States was firmly established as the world's first spacefaring nation. The imagination of the American public was captured. *Collier's* and *Life* breathlessly reported each new success to millions of readers, CBS anchorman Walter Cronkite became the first journalist to report from space during a three-part series filmed aboard the Wheel, and "Star Trek," a somewhat melodramatic TV series pro-

duced by Irwin Allen, was the second-highest rated network program for years, surpassed in the Nielsens only by "I Love Lucy."

Yet the distinctly military flavor of the American space program disturbed many on Capitol Hill. In 1959, a move was made by members of the Senate to bring the program under civilian control. The "Space Act," proposed by two Democratic leaders in the Senate, John F. Kennedy of Massachusetts and Lyndon B. Johnson of Texas, would have created a civilian space agency, the National Aeronautics and Space Administration, or NASA.

Naturally, the bill was vigorously opposed by the Pentagon, which claimed that a civilian agency could not possibly put a man on the moon before 1970. But the Space Act didn't need Pentagon hostility to kill it, only the loss of its primary sponsors. Kennedy, the Democratic presidential nominee in 1960, lost the election to Richard M. Nixon; Johnson also lost his seat in the Senate in the same election year.

With Kennedy and Johnson both suddenly out of office, NASA died along with the Space Act; the bill died in the Ways and Means Committee. Under the conservative Nixon Administration, the space program remained under military control. Since Nixon was an ardent supporter of the military space effort, the Space Force formally proposed, shortly after the election, a manned expedition to the Moon, *Luna One*.

The justification for this enormous effort—initially budgeted at \$4 billion, although by the time John Harper Wilson set foot on the Moon almost nine billion dollars had been spent—was that if the United States didn't lay claim to the Moon, the Soviet Union soon would. This was a tenuous argument. The Soviet space program had been handicapped by a string of accidents, including the spectacular explosion of an unmanned *Vostok* spacecraft in 1957, and it was not until 1959 that the U.S.S.R. managed to put its first astronaut, Yuri Gagarin, into orbit. Yet the Pentagon managed to convince the White House and Congress that the Soviets were embarked upon a crash program to establish a military base on the Moon and were on the verge of catching up with the American space program. With Nixon and Senator Phyllis Schlafly (R., New York) leading the charge, Congress approved a ten-year program to put an American base on the Moon by 1970.

Which is where John Harper Wilson enters the picture.

Wilson had been under scrutiny by the Space Force as a possible commander for a lunar expedition since 1958, the year he first piloted an *Atlas* into orbit. A misfire of a starboard maneuvering rocket had sent the third stage into an end-over-end tumble which threatened to send the winged spacecraft into a lethal orbital decay. Wilson demonstrated extraordinary grace under pressure by firing other MR's in exactly the

right order, thus pulling the ship out of its tumble and saving the lives of the crew and its cargo. This rescue made Wilson a hero, and the Space Force started to keep an eye on the young former test pilot from Concord, New Hampshire.

Past and active Space Force personnel, who have asked to remain anonymous, remember Wilson as an easy-going, unpretentious family man when he was based at the Cape. Married to his college sweetheart and with a young son, John Wilson, Jr., he was a career officer, loyal to the Space Force even though he managed to take things with a few grains of salt. "Johnny was no hot-shot, and this was when we had plenty of hot-shot space cadets at the Cape," recalls one former USSF officer. "He never pulled rank on anyone. You could get along with the guy. He knew he was good, but he used to joke about how when this was all over he would go manage a trailer park somewhere. Other guys kept saying how they were going to be the first man on the Moon."

On Saturday nights Johnny Wilson could be found in the officer's club with his best friend, Captain Neil Holliday. Wilson and Holliday had met when they were jockeying jets at Edwards Air Force Base, and both had managed to be transferred to Cape Canaveral at the same time. In the club, Johnny and Neil would guzzle beer and watch "Star Trek," laughing uproariously at the less-than-plausible adventures of space hero Captain Jim Kirk and his wisecracking scientist buddy Arnold Spock. Afterwards would come the all-night poker games, and more than a few times the M.P.'s would have to drive Johnny and Neil back to their homes.

Holliday was even less reverent towards the Space Force than Wilson. Wilson, years later, recalls the practical jokes Holliday often played, like putting lemonade into his weekly urine test or slipping a *Playboy* centerfold into another pilot's map case, so that when the space cadet unrolled it during a mission briefing, out would fall Miss April.

"Neil probably shot himself in the foot with some of those gags, and that's probably why he never became Major," says Wilson. "But underneath all the wise-guy stuff was a loyal USSF officer. He never made a spectacle of it, but he was really hard when it came to space."

Wilson and Holliday flew orbital missions through the early '60s, and in 1963 both spent six months aboard the Wheel as senior officers. By this time construction of the three moonships—passenger ships *Eagle One* and *Eagle Two* and cargo ship *Eagle Three*—had commenced. Sometimes the two officers would take a space car from the Wheel out to the orbiting construction zone where the skeletons of the massive *Luna One* ships were slowly being assembled.

"We kept saying to each other, 'When we go to the Moon, when we walk on the Moon,'" Wilson recalls. "There was no *if* about it. There was

no doubt in our minds that we were being groomed for *Luna One*, even if the Space Force hadn't officially announced who the crew would be. There were other guys in the running, of course, like Pete Conrad and Al Shepard and Buzz Aldrin, and at one point the odds-on favorite was Neil Armstrong for the command spot. But I *knew* it was going to be my mission, and Holliday *knew* that he was going to be riding shotgun. I mean, who the hell else was there?"

Wilson's intuition proved correct. On February 19, 1966, he was summoned to the office of the Cape's base commander, USSF General Jeffrey Marco, where Wilson was informed that he would lead *Luna One* to the Moon. The target date for the landing would be July 4, 1969; his second-in-command would be *Eagle One*'s pilot, Neil Holliday.

Yet by 1966, America was having second thoughts about its destiny in space. President Nixon, in his second term in office, had further escalated the war in Viet Nam, and many thousands of young men had been killed in what was increasingly being perceived as a war without an objective. As draft-dodging increased and college activists began to publicly burn their draft cards, disenchantment towards the military spread to the space program.

Norman Mailer published a blistering attack on the program, *Why Are We Going To The Moon?*, which prompted Democratic senators William Proxmire of Wisconsin and Walter Mondale of Minnesota to revive the Kennedy-Johnson Space Act. Democratic presidential candidate Robert Kennedy made the military space program a central issue in his criticism of the Nixon White House. Radicals Abbie Hoffman and Jerry Rubin led two hundred students in a sit-in in front of the gates of the Cape, and actress-activist Jane Fonda confronted Buzz Aldrin in an angry chance encounter at LaGuardia Airport in New York. "Star Trek" was canceled following a fast plummet to the bottom of the Nielsen ratings.

The shift in the country's attitude toward space was not unnoticed by Major Wilson. "I was confused," Wilson remembers. "One day, I was a national hero who couldn't go to the movies without being hounded for autographs. The next day, I was being stopped on the street by the same kids who once idolized me and were now asking why I wanted to blow up the world.

"I didn't want to blow up the world," he continues. "But it started to make me wonder what the Space Force wanted to do, because I knew a top-secret objective of the Space Force was to place nuclear missiles at the Moon Base once it was established. I had never really thought about that before, but now . . . well, I started to think about it a little bit."

Another former Space Force officer stationed at the Cape at the time says that Wilson's attitude began to change. "He became more serious,

less happy-go-lucky about things," he recalls. "We all but stopped seeing him in the officer's club, for one thing. We thought it was, y'know, nerves, being under pressure about *Luna One*. It never occurred to us that he was having doubts about the program as a whole."

The real turning point for Wilson, however, didn't come until Christmas Eve, 1968. As was traditional with the Wilson family, John, Jr. received one of his presents that night; this year he was given his first railroad set. Leanne Wilson remembers how the miniature tracks wound around the Christmas tree and under chairs and the coffee table, and how their five-year-old son couldn't be pried away from his tiny passenger train even to watch the TV as the spaceship *Columbus* made the first manned flyby of the Moon.

The *Columbus* mission was technically little more than a dry run for *Luna One*, scheduled for seven months later, but the Space Force needed something to impress the public in this new era of doubt about the space program. Thus a TV camera was mounted on the outside of the ship's superstructure. On Christmas Eve, at 8:35 P.M. EST, an audience of thirty million Americans watched on TV as the camera caught the unforgettable sight of the Earth rising above the limb of the Moon.

This was soundtracked by a tape of the "Air Force Flight Song," but as John Wilson watched the earthrise on TV, he had a more profound thought. He recalled the opening verses of the Book of Genesis. After turning down the volume on his set, he quoted them from memory to his wife and son: "'In the beginning God created the heavens and the earth. The earth was without form and void, and darkness was upon the face of the deep; and the Spirit of God was moving over the face of the waters. And God said, "Let there be light"; and there was light. . . .'"

"This was a moment of epiphany for me," Wilson says years later. "I suddenly realized that, from the Moon, you see the whole planet, not just the United States of America. For the first time in my life I really saw that the U.S.A. was not the center of the universe, that my country, as much as I loved her, was not the biggest thing on the planet. So why should America take sole claim to the Moon?"

Wilson leaned back in his chair, staring at the bit of moonrock in his hands. "It was a simple notion, really, but it was something that had never occurred to me before. And it kinda shook me up, because here I was, the man who in seven months was supposed to claim the Moon as territory of the United States. But how could I do this, knowing and believing as I did now?"

Later that evening, still trying to cope with his uneasiness, Wilson slipped out to the officer's club. The club was nearly empty that night—most of the base personnel were either on duty or enjoying Christ-

mas Eve with their families at home—but he found at the bar his old friend, Neil Holliday. The two men grabbed a bottle of scotch and hunkered down at a corner table to share some Christmas spirit, but what happened would further change Wilson's life.

Johnny Wilson had been careful not to express his recent misgivings about *Luna One*, knowing that such musings could find their way to Space Force security officers, but that night his brain was on fire and, soon, his caution was numbed by the scotch. Before they had worked their way to the bottom of the bottle, Wilson had slurred his revelation to Holliday, who sat silently on the other side of the table, listening and occasionally pouring his friend another shot.

"I got drunk," Wilson says. "I got plastered, and I opened my heart to my best friend in the world. Now, people can do that all the time, but not necessarily in the Space Force. I don't recall exactly what I said, but I let it all hang out."

He paused, and shook his head. "And what do you know? The son of a bitch stabbed me in the back. Neil Holliday went straight to the brass with everything I had said."

Indeed. The day after Christmas, Capt. Neil Holliday went to the base hospital where he conferred privately with staff psychiatrists on the *Moon* operation, telling them about Major Wilson's revelations. Concerned, the psychiatrists immediately summoned members of the Space Force upper echelon and the intelligence staff. In an off-record, closed-door meeting at the hospital, Holliday blew the whistle on Wilson. Sources say that Holliday claimed Wilson was "losing his edge," that Wilson had told Holliday that he had received a message from God, that the Almighty didn't want the Space Force on the *Moon*, that the United States didn't have any right to claim the *Moon* for itself.

The sources say this put the Space Force general staff into a quandary. *Luna One* was only a few months away, and the crew was in the midst of intensive training. There was simply no way that Wilson, who had been preparing for the mission for the last two years, could now be yanked from the command seat and replaced. Nor could the flight be postponed; everyone was frightened that the Russians were preparing their own lunar mission, and the common perception was that the U.S. was locked into a race against time to beat the Soviets to the *Moon*. Yet at the same time, they didn't want an unstable man to lead nine men and three ships to the *Sea of Tranquility*. Especially if that man thought he was under orders from God to keep the U.S. from claiming the *Moon*, as Holliday had led them to believe.

But the staff psychiatrists didn't see it that way. "They pointed out that the major had been ripped when he had said these things to Holliday," one source recalls. "They asked, somewhat rhetorically, whether

Wilson wasn't entitled to get blitzed and say some strange comments, considering the enormous pressure he was under. The shrinks weren't worried. 'Just keep an eye on him and keep your options open,' that was their advice, and the brass accepted it."

So the men at the meeting made an on-the-spot decision: Wilson would remain in command of *Luna One*, but Holliday was to closely monitor the major's mental condition. "The word was, if Wilson looked like he was going to crack, they were going to yank him from the top gun slot at once, even if he was standing on the Moon when it happened," the source says.

And why did Holliday snitch on Wilson? Wilson believes that his friend was merely looking out for the best interests of the mission. But the source, who was at the meeting, remembers that Holliday appeared very satisfied when he was told that, if Wilson was taken off *Luna One*, Holliday himself would have the command. "There's no question in my mind that Neil Holliday wanted to be the first man to walk on the Moon," he says.

It's now midafternoon and the conversation has moved into John Wilson's office in the cabin's guest room. Leanne Wilson brought a teakwood tray laden with Syrian bread, English chutney, and hot coffee into the office, then retires to the living room to write a letter to John, Jr., now a graduate student in physics at the University of Colorado in Boulder. Through the window a neighbor's cat can be seen, stalking mice and spiders in the backyard.

"Of course I knew I was being watched," John Wilson says as he spreads chutney onto a slice of bread with a butter knife. "I figured out, from the way he was acting, the questions he was asking—have I been going to church, that sort of thing—that Neil was spying on me and regularly reporting to the shrinks and the top brass. So I kept my mouth closed, acted like nothing was different from before."

He smiles. "But, yes, I was making my own plans for the mission. But I said nothing to anyone, not even Leanne, and I wrote nothing in my journal. This was strictly between me and my conscience."

Sources say that Holliday's reports to the Space Force high command revealed nothing unusual in Wilson's behavior prior to the mission; he wasn't talking about *Genesis* or mankind's right to claim the Moon, he hadn't been reading the *Mailer* book and he hadn't voted for Bobby Kennedy in the last election. The *Luna One* training team reported that Wilson's test scores had remained high and that his performance during flight simulations was superior. There was no hint that he was going to crash *Eagle One* into the Moon or attempt to blow out the pressure in the crew compartment.

After awhile, Wilson's Christmas Eve ramblings were written off by most of the brass as whisky talk.

By now, the Space Force had other problems. Bobby Kennedy had promised a civilian space program during his presidential campaign. Now, having defeated Ronald Reagan in November, the new liberal President was apparently intent on making good his promise. The Proxmire-Mondale bill to form NASA was gathering momentum on the Hill, and if Congress passed the bill there was little doubt that Kennedy would sign it into law. Thus, the Space Force would be dismantled and NASA would take over the space program as a civilian activity. Luna One was to continue as planned even if the Space Act was signed by the end of July—by now the landing had been pushed back two weeks due to a ruptured seal on a fuel tank on *Eagle Three*—but it would be the last hurrah for the all-military space effort.

In an effort to head off political disaster, the Pentagon was trying to recast Luna One as a peaceful venture. It downplayed the military significance of the lunar base and attempted to portray the mission as being in the spirit of human exploration. The hope was that this last-minute P.R. effort would make the Space Act seem unnecessary and turn around the votes on Capitol Hill.

Yet while the Secretary of the Air Force was in front of Congressional committees claiming that the USSF should be renamed the "United States Peace Force," the talk on the Cape was of bitter resentment against the Commander-in-Chief. "Everyone *knew* that the civilians would blow it if they were given charge of the space program," Wilson says. "The Space Force was determined to keep control of the program, and the logic was that, if Luna One claimed ownership of the Moon for the U.S., the public would force Congress to vote down the Space Act.

"I didn't like that idea," he continues. "More than ever, I didn't want the U.S. to outright own the Moon . . . because it wouldn't be the people of the United States but the Pentagon having sole right to the Moon. That was scary. Really, very scary."

Two weeks before the beginning of the mission, the day before the expedition members were launched to the Wheel for final preparations for Luna One, John Harper Wilson was given the text of the first words he would say upon setting foot on the Moon. The text, which had been carefully written by the Space Force, was classified Most Secret.

It read: "I, John Harper Wilson, do claim the Moon as the sovereign territory of the United States of America. That's one small step for an American, one giant leap for America."

Wilson dutifully memorized the speech in case anyone asked for a rehearsal. Someone did. A few days before the launch of the three Luna

One ships from Earth orbit, while relaxing in the space station's rec room, Neil Holliday innocuously asked Wilson what he would say when he stepped onto the Moon. Since Holliday was cleared for Most Secret, Wilson repeated the words for his friend.

"He just nodded and looked away," Wilson says, "but I don't think he was just wasting time with that question."

On July 20, under the harsh glare of the early lunar afternoon, *Eagle One* descended like a steel monolith riding a blowtorch to the surface of the Moon. Its touchdown in the Sea of Tranquility was followed shortly by the arrival of *Eagle Two* and *Eagle Three*, the engines of each blackening the grey lunar dust beneath their landing struts. Several hours later, as planned, Major John Harper Wilson undogged the airlock hatch and began his long solo climb down the ladder to the Moon's surface.

"I wasn't thinking of history or how I would figure in it, or even about where I was," Wilson recalls. "I was thinking about my career while I was climbing down. 'They're going to court-martial me after I do this,' that was my main thought. I guess I wasn't sure what I was going to do was right."

A TV camera outside the ship televised the final steps of Wilson's descent, and its images, along with Wilson's voice, were transmitted to fifty million people watching throughout the world, in their homes and on storefront sets and on giant screens set up in Times Square and Piccadilly Circus. Those millions of viewers were witnesses when Wilson, obeying a higher call than nationalism or loyalty to the U.S. Space Force, changed the script.

Wilson stepped off the landing pad, planted his booted feet solidly in the lunar dust, and spoke the words he had concocted weeks before. "That's one small step for man," he said slowly. "One giant leap for mankind."

There was a long pause from Mission Control at the Cape, longer than was obligated by the 2.6 second delay. "*Eagle One*, this is CapCom," the Cape's spacecraft communicator responded after almost a minute. "We didn't quite copy that, over."

Wilson spoke again, his voice steady. "I, John Harper Wilson, claim the Moon in the name of humanity, not as the property of any one nation, but as the common heritage of all the peoples of Earth."

He paused, then added, "We've come in peace for all mankind."

Senator Eugene "Rocky" Costello (D., Massachusetts) was in the Oval Office with President Kennedy when Wilson stepped onto the Moon. With them was Air Force secretary Malcolm Danforth. "When John Wilson said that, the President was sort of surprised," Costello says today. "He

turned to Danforth and said, 'I didn't know the Pentagon had it in them to be so generous.'

"Danforth didn't say much. He simply said, 'Yes sir, Mr. President,' and then he excused himself, saying that he had to make a phone call. I started to say something about how nice it was for the Space Force to give us NASA when Bobby, the President, looked back at the TV and said, 'Hey, what happened to the picture?'"

Wilson had gone on to describe the soil he was standing on and the condition of *Eagle One*, but by then—according to the Space Force's explanation—there was a temporary communications failure. TV screens went black, and Wilson's voice was lost, and the communication link between Earth and the Moon went silent for four and a half minutes. The networks were informed by the Space Force that there had been a satellite snafu, but what had really happened was that the Cape pulled the plug on Wilson.

An anonymous Space Force source has recently leaked a classified partial transcript of the communications between CapCom, *Eagle One*, and Wilson during that brief black-out.

CAPCOM: "Eagle One, this is CapCom. Do you want to repeat what you have said? Over."

WILSON: "CapCom, *Eagle One*. I said that the soil is fine and powdery and that I can pick it up with my toe, and it adheres to my . . ."

CAPCOM: "Eagle One, you seem to have deviated from your mission profile. Please acknowledge, over."

WILSON: "CapCom, this is *Eagle One*. That's affirmative, over."

CAPCOM: "Eagle One, CapCom. Is this a deliberate change? Over."

WILSON: "That's affirmative, CapCom. Over."

CAPCOM: "Eagle One, this is CapCom. Captain Holliday, do you copy? Over."

HOLLIDAY: "CapCom, this is *Eagle One*, Holliday. We copy, over."

CAPCOM: "Holliday, Mission Command affirms that you are now in command of Luna One until further notice. Major Wilson has been relieved of his command. Do you copy? Over."

HOLLIDAY: "CapCom, this is *Eagle One*, Holliday. We copy, over."

WILSON: "I copy, CapCom. Thank you."

CAPCOM: "Eagle One, this is CapCom. Commander Holliday, you will descend from the craft and continue the mission profile. We are now in communications blackout and will continue on your mark. Major Wilson, you will place yourself under military arrest, and Mission Command orders you to desist from any communications until you are back inside the ship. Do you copy? Over."

WILSON: "We copy, CapCom. Wilson over and out."

HOLLIDAY: "We copy, and we are preparing to leave the ship. *Eagle One* over."

After spending the better part of the six weeks confined to *Eagle One* and the immediate Tranquility Base encampment—Neil Holliday led the expedition to Julius Caesar crater—Wilson returned to Earth with the rest of the Space Force team, and promptly vanished from the public eye. "I wasn't exactly brought back in manacles, but there was some loose talk before we lifted off of whether I should be left behind to monitor the automatic instruments," Wilson says half-jokingly.

There was not much the Space Force could do to Wilson, though. A court-martial could not have been done in secret, and would have raised too many questions. So Wilson "retired" from the Space Force, under strict orders from the Pentagon that he never reveal what had happened on the Moon.

It was impossible for the Space Force to retract Wilson's statement. After all, millions of people had heard the major bequeath the Moon to humanity; Neil Holliday couldn't simply say, "No, we take that back, the Moon belongs to the United States." It would have caused international embarrassment for the United States in general and for the Space Force in particular. By the time *Luna One* returned to Earth, the Moon had become recognized as belonging to everyone and no one, and the United Nations was hammering out an agreement which would formalize these conditions.

Within three months of the first lunar landing, the Space Act was passed by Congress and signed into law by the President. NASA became an official government agency on January 1, 1970, and control of the U.S. space program was passed into civilian hands. While former Space Force officers continue today to work for NASA, they take their orders from the Administration, not from the Pentagon. Shortly after Kennedy's assassination, the U.S. Space Force Canaveral Launch Center was renamed the NASA Robert Kennedy Space Center, and it became the springboard for future lunar expeditions and the continuing exploration of the solar system.

John Harper Wilson never talked to Neil Holliday again after *Luna One* came home; three years later, Holliday's T-38 jet trainer crashed at the Cape while he was practicing soft-landing maneuvers, killing Holliday and his co-pilot instantly. Despite the rift which opened between them during *Luna One*, Wilson bears no grudge against his former friend. "Neil thought he was doing what was right," he says. "I can't blame him for that."

Today, two decades after *Luna One*, the United States has a self-sufficient, non-military base on the Moon. Instead of competing with each

other, the U.S. and the Soviet Union are embarked on a joint manned expedition to Mars, to be launched within the next two years. Civilians regularly travel into space, and the Hilton hotel chain has announced plans to build an orbital hotel in the 1990s. Yet Wilson denies that he was the catalyst in changing the direction of space exploration towards a more peaceful course. "Somebody else would have done something, sooner or later," is all he says about his role in events.

So why has he decided to go public after all these years? The former astronaut shrugs and looks out the window as the early autumn sun begins to set behind the trees. "History gave me the chance to walk on the Moon," he says after some reflection. "I just wanted to give history back four and a half minutes that it was missing." ●

NEXT ISSUE:

British writer Duncan Lunan makes his *Asfm* debut next month with our chilling July cover story, "In the Arctic, Out of Time." It's 1850, and HMS *Resolute*, on an expedition in arctic waters, has been caught by the onrush of the awful arctic winter, and locked in the ice. Ahead lay months of darkness, isolation, and terrible cold... but then the crew of the *Resolute* begin to realize that They Are Not Alone in the desolate arctic wastes, and that they are on the brink of an adventure stranger than any they could possibly have imagined.... From the arctic seas of the 1850s, Nebula and Hugo-winner Connie Willis then takes us to present-day, small-town America, for a look at a star-crossed love that never was—or was it?—in the wry and sprightly "Time-Out." Witty and fast-moving, funny and bittersweet, wise and acerbic, this is one that only Connie Willis could have written.

ALSO IN JULY: critically-acclaimed writer Suzy McKee Chamas makes her *Asfm* debut with a compelling and unflinching look at a troubled young girl's bizarre Coming-Of-Age, in "Boobs"; the madly inventive Phillip C. Jennings mixes up a heady stew of transfiguration and offbeat apotheosis, in "Martin's Feast"; new writer Kathe Koja returns with a brutal depiction of a Close Encounter of a very unusual kind, in the unsettling "Skin Deep"; new writer John Kennedy makes his *Asfm* debut with a haunting tale of transcendental passion and Second Chances, in "Encore"; and new writer M. Shayne Bell takes us to a Southeast Asia caught in the grip of a future Ice Age, just in time to witness the final deadly and desperate battle for "Bangkok." Plus a selection of columns and features. Look for our July issue on sale on your newsstands on May 30, 1989.

In its year-end wrap-up issue, the newsmagazine *Locus* said of us: "Asimov's is still the cutting edge of short fiction. The level of writing is astonishingly high—probably the best in or out of the field. A healthy portion of the best American short fiction is probably published here." Isn't it time that you subscribe, and find out what the shouting's all about for yourself? Do it today, and take no chance of missing any of the great issues coming up in 1989!

COMPUTER FRIENDLY

by Eileen Gunn



Eileen Gunn first appeared in *IAstm* a year ago with her marvelous short story, "Stable Strategies for Middle Management." Ms. Gunn lives in the Pacific Northwest, and is a card-carrying member of the Radar Angels. She returns to our pages with a decidedly witty and wicked look at a highly computerized society.

art: John Barrick

Holding her dad's hand, Elizabeth went up the limestone steps to the testing center. As she climbed, she craned her neck to read the words carved in pink granite over the top of the door: Francis W. Parker School. Above them was a banner made of grey cement that read "Health, Happiness, Success."

"This building is old," said Elizabeth. "It was built before the war."

"Pay attention to where you're going, punkin," said her dad. "You almost ran into that lady there."

Inside, the entrance hall was dark and cool. A dim yellow glow came through the shades on the tall windows.

As Elizabeth walked across the polished floor, her footsteps echoed lightly down the corridors that led off to either side. She and her father went down the hallway to the testing room. An old, beat-up, army-green query box sat on a table outside the door.

"Rutherford, Elizabeth Rutherford," said her father to the box. "Age seven, computer-friendly, smart as a whip."

"We'll see," said the box with a chuckle. It had a gruff, teasing, grandfatherly voice. "We'll just see about *that*, young lady." What a jolly interface, thought Elizabeth. She watched as the classroom door swung open. "You go right along in there, and we'll see just how smart you are." It chuckled again, then it spoke to Elizabeth's dad. "You come back for her at three, sir. She'll be all ready and waiting for you, bright as a little watermelon."

This was going to be fun, thought Elizabeth. Nothing to do all day except show how smart she was.

Her father knelt in front of her and smoothed her hair back from her face. "You try real hard on these tests, punkin. You show them just how talented and clever you really are, okay?" Elizabeth nodded. "And you be on your best behavior." He gave her a hug and a pat on the rear.

Inside the testing room were dozens of other seven-year-olds, sitting in rows of tiny chairs with access boxes in front of them. Glancing around the room, Elizabeth realized that she had never seen so many children together all at once. There were only ten in her weekly socialization class. It was sort of overwhelming.

The monitors called everyone to attention and told them to put on their headsets and ask their boxes for Section One.

Elizabeth followed directions, and she found that all the interfaces were strange—they were friendly enough, but none of them were the programs she worked with at home. The first part of the test was the multiple-choice exam. The problems, at least, were familiar to Elizabeth—she'd practiced for this test all her life, it seemed. There were word games, number games, and games in which she had to rotate little boxes in her head. She knew enough to skip the hardest until she'd worked

her way through the whole test. There were only a couple of problems left to do when the system told her to stop and the box went all grey.

The monitors led the whole room full of kids in jumping-jack exercises for five minutes. Then everyone sat down again and a new test came up in the box. This one seemed very easy, but it wasn't one she'd ever done before. It consisted of a series of very detailed pictures; she was supposed to make up a story about each picture. Well, she could do that. The first picture showed a child and a lot of different kinds of animals. "Once upon a time there was a little girl who lived all alone in the forest with her friends the skunk, the wolf, the bear, and the lion. . ." A beep sounded every so often to tell her to end one story and begin another. Elizabeth really enjoyed telling the stories, and was sorry when that part of the test was over.

But the next exercise was almost as interesting. She was to read a series of short stories and answer questions about them. Not the usual questions about what happened in the story—these were harder. "Is it fair to punish a starving cat for stealing?" "Should people do good deeds for strangers?" "Why is it important for everyone to learn to obey?"

When this part was over, the monitors took the class down the hall to the big cafeteria, where there were lots of other seven-year-olds, who had been taking tests in other rooms.

Elizabeth was amazed at the number and variety of children in the cafeteria. She watched them as she stood in line for her milk and sandwich. Hundreds of kids, all exactly as old as she was. Tall and skinny, little and fat; curly hair, straight hair, and hair that was frizzy or held up with ribbons or cut into strange patterns against the scalp; skin that was light brown like Elizabeth's, chocolate brown, almost black, pale pink, freckled, and all the colors in between. Some of the kids were all dressed up in fancy clothes; others were wearing patched pants and old shirts.

When she got her snack, Elizabeth's first thought was to find someone who looked like herself, and sit next to her. But then a freckled boy with dark, nappy hair smiled at her in a very friendly way. He looked at her feet and nodded. "Nice shoes," he said. She sat down on the empty seat next to him, suddenly aware of her red maryjanes with the embroidered flowers. She was pleased that they had been noticed, and a little embarrassed.

"Let me see *your* shoes," she said, unwrapping her sandwich.

He stuck his feet out. He was wearing pink plastic sneakers with hologram pictures of a missile gantry on the toes. When he moved his feet, they launched a defensive counterattack.

"Oh, neat." Elizabeth nodded appreciatively and took a bite of the sandwich. It was filled with something yellow that tasted okay.

A little tiny girl with long, straight, black hair was sitting on the other side of the table from them. She put one foot up on the table. "I got shoes, too," she said. "Look." Her shoes were black patent, with straps. Elizabeth and the freckled boy both admired them politely. Elizabeth thought that the little girl was very daring to put her shoe right up on the table. It was certainly an interesting way to enter a conversation.

"My name is Sheena and I can spit," said the little girl. "Watch." Sure enough, she could spit really well. The spit hit the beige wall several meters away, just under the mirror, and slid slowly down.

"I can spit, too," said the freckled boy. He demonstrated, hitting the wall a little lower than Sheena had.

"I can *learn* to spit," said Elizabeth.

"All right there, no spitting!" said a monitor firmly. "Now, you take a napkin and clean that up." It pointed to Elizabeth.

"She didn't do it, I did," said Sheena. "I'll clean it up."

"I'll help," said Elizabeth. She didn't want to claim credit for Sheena's spitting ability, but she liked being mistaken for a really good spitter.

The monitor watched as they wiped the wall, then took their thumbprints. "You three settle down now. I don't want any more spitting." It moved away. All three of them were quiet for a few minutes, and munched on their sandwiches.

"What's your name?" said Sheena suddenly. "My name is Sheena."

"Elizabeth."

"Lizardbreath. That's a funny name," said Sheena.

"My name is Oginga," said the freckled boy.

"That's *really* a funny name," said Sheena.

"You think everybody's name is funny," said Oginga. "Sheena-Teena-Peena."

"I can tap dance, too," said Sheena, who had recognized that it was time to change the subject. "These are my tap shoes." She squirmed around to wave her feet in the air briefly, then swung them back under the table.

She moves more than anyone I've ever seen, thought Elizabeth.

"Wanna see me shuffle off to Buffalo?" asked Sheena.

A bell rang at the front of the room, and the three of them looked up. A monitor was speaking.

"Quiet! Everybody quiet, now! Finish up your lunch quickly, those of you who are still eating, and put your wrappers in the wastebaskets against the wall. Then line up on the west side of the room. The west side. . . ."

The children were taken to the restroom after lunch. It was grander than any bathroom Elizabeth had ever seen, with walls made of polished red granite, lots of little stalls with toilets in them, and a whole row of

sinks. The sinks were lower than the sink at home, and so were the toilets. Even the mirrors were just the right height for kids.

It was funny because there were no stoppers in the sinks, so you couldn't wash your hands in a proper sink of water. Sheena said she could make the sink fill up, and Oginga dared her to do it, so she took off her sweater and put it in the sink, and sure enough, it filled up with water and started to overflow, and then she couldn't get the sweater out of it, so she called a monitor over. "This sink is overflowing," she said, as if it were all the sink's fault. A group of children stood around and watched while the monitor fished the sweater from the drain and wrung it out.

"That's mine!" said Sheena, as if she had dropped it by mistake. She grabbed it away from the monitor, shook it, and nodded knowingly to Elizabeth. "It dries real fast." The monitor wanted thumbprints from Sheena and Elizabeth and everyone who watched.

The monitors then took the children to the auditorium, and led the whole group in singing songs and playing games, which Elizabeth found only moderately interesting. She would have preferred to learn to spit. At one o'clock, a monitor announced it was time to go back to the classrooms, and all the children should line up by the door.

Elizabeth and Sheena and Oginga pushed into the same line together. There were so many kids that there was a long wait while they all lined up and the monitors moved up and down the lines to make them straight.

"Are you going to go to the Asia Center?" asked Sheena. "My mom says I'll probably go to the Asia Center tomorrow, because I'm so fidgety."

Elizabeth didn't know what the Asia Center was, but she didn't want to look stupid. "I don't know. I'll have to ask my dad." She turned to Oginga, who was behind her. "Are you going to the Asia Center?"

"What's the Asia Center?" asked Oginga.

Elizabeth looked back at Sheena, waiting to hear her answer.

"Where we go to sleep," Sheena said. "My mom says it doesn't hurt."

"I got my own room," said Oginga.

"It's not like your room," Sheena explained. "You go there, and you go to sleep, and your parents get to try again."

"What do they try?" asked Elizabeth. "Why do you have to go to sleep?"

"You go to sleep so they have some peace and quiet," said Sheena. "So you're not in their way."

"But what do they try?" repeated Elizabeth.

"I bet they try more of that stuff that they do when they think you're asleep," said Oginga. Sheena snorted and started to giggle, and then Oginga started to giggle and he snorted too, and the more one giggled and snorted, the more the other did. Pretty soon Elizabeth was giggling

too, and the three of them were helplessly choking, behind great hic-coughing gulps of noise.

The monitor rolled by then and told them to be quiet and move on to their assigned classrooms. That broke the spell of their giggling, and, subdued, they moved ahead in the line. All the children filed quietly out of the lunchroom and walked slowly down the halls. When Elizabeth came to her classroom, she shrugged her shoulders at Oginga and Sheena and jerked her head to one side. "I go in here," she whispered.

"See ya at the Asia Center," said Sheena.

The rest of the tests went by quickly, though Elizabeth didn't think they were as much fun as in the morning. The afternoon tests were more physical; she pulled at joysticks and tried to push buttons quickly on command. They tested her hearing and even made her sing to the computer. Elizabeth didn't like to do things fast, and she didn't like to sing.

When it was over, the monitors told the children they could go now, their parents were waiting for them at the front of the school. Elizabeth looked for Oginga and Sheena as she left, but children from the other classrooms were not in the halls. Her dad was waiting for her out front, as he had said he would be.

Elizabeth called to him to get his attention. He had just come off work, and she knew he would be sort of confused. They wiped their secrets out of his brain before he logged off of the system, and sometimes they took a little other stuff with it by mistake, so he might not be too sure about his name, or where he lived.

On the way home, she told him about her new friends. "They don't sound as though they would do very well at their lessons, princess," said her father. "But it does sound as if you had an interesting time at lunch." Elizabeth pulled his hand to guide him onto the right street. He'd be okay in an hour or so—anything important usually came back pretty fast.

When they got home, her dad went into the kitchen to start dinner, and Elizabeth played with her dog, Brownie. Brownie didn't live with them anymore because his brain was being used to help control data traffic in the network. Between rush hours, Elizabeth would call him up on the system and run simulations in which she plotted the trajectory of a ball and he plotted an interception of it.

They ate dinner when her mom logged off work. Elizabeth's parents believed it was very important for the family to all eat together in the evening, and her mom had custom-made connectors that stretched all the way into the dining room. Even though she didn't really eat anymore, her local I/O was always extended to the table at dinnertime.

After dinner, Elizabeth got ready for bed. She could hear her father in his office, asking his mail for the results of her test that day. When

he came into her room to tuck her in, she could tell he had good news for her.

"Did you wash behind your ears, punkin?" he asked. Elizabeth figured that this was a ritual question, since she was unaware that washing behind her ears was more useful than washing anywhere else.

She gave the correct response: "Yes, Daddy." She understood that, whether she washed or not, giving the expected answer was an important part of the ritual. Now it was her turn to ask a question. "Did you get the results of my tests, Daddy?"

"We sure did, princess," her father replied. "You did very well on them."

Elizabeth was pleased, but not too surprised. "What about my new friends, Daddy? How did they do?"

"I don't know about that, punkin. They don't send us everybody's scores, just yours."

"I want to be with them when I go to the Asia Center."

Elizabeth could tell by the look on her father's face that she'd said something wrong. "The what? Where did you hear about that?" he asked sharply.

"My friend Sheena told me about it. She said she was going to the Asia Center tomorrow," said Elizabeth.

"Well, *she* might be going there, but that's not anyplace you're going." Her dad sounded very strict. "You're going to continue your studies, young lady, and someday you'll be an important executive like your mother. That's clear from your test results. I don't want to hear any talk about you doing anything else. Or about this Sheena."

"What does mommy do, daddy?"

"She's a processing center, sweetheart, that talks directly to the CPU. She uses her brain to control important information and tell the rest of the computer what to do. And she gives the whole system common sense." He sat down on the edge of the bed, and Elizabeth could tell that she was going to get what her dad called an "explanatory chat."

"You did so well on your test today that maybe it's time we told you something about what you might be doing when you get a little older." He pulled the blanket up a little bit closer to her chin and turned the sheet down evenly over it.

"It'll be a lot like studying, or like taking that test today," he continued. "Except you'll be hardwired into the network, just like your mom, so you won't have to get up and move around. You'll be able to do anything and go anywhere in your head."

"Will I be able to play with Brownie?"

"Of course, sweetheart, you'll be able to call him up just like you did

tonight. It's important that you play. It keeps you healthy and alert, and it's good for Brownie, too."

"Will I be able to call you and Mommy?"

"Well, princess, that depends on what kind of job you're doing. You just might be so busy and important that you don't have time to call us."

Like Bobby, she thought. Her parents didn't talk much about her brother Bobby. He had done well on his tests, too. Now he was a milintel cyborg with go-nogo authority. He never called home, and her parents didn't call him, either.

"Being an executive is sort of like playing games all the time," her father added, when Elizabeth didn't say anything. "And the harder you work right now, the better you do on your tests, the more fun you'll have later."

He tucked the covers up around her neck again. "Now you go to sleep, so you can work your best tomorrow, okay, princess?" Elizabeth nodded. Her dad kissed her good night, and poked at the covers again. He got up. "Good night, sweetheart," he said, and he left the room.

Elizabeth lay in bed for a while, trying to get to sleep. The door was open so that the light would come in from the hall, and she could hear her parents talking downstairs.

Her dad, she knew, would be reading the news at his access box, as he did every evening. Her mom would be tidying up noise-damaged data in the household module. She didn't have to do that, but she said it calmed her nerves.

Listening to the rise and fall of their voices, she heard her name. What were they saying? Was it about the test? She got up out of bed, crept to the door of her room. They stopped talking. Could they hear her? She was very quiet. Standing in the doorway, she was only a few feet from the railing at the top of the staircase, and the sounds came up very clearly from the living room below.

"Just the house settling," said her father, after a moment. "She's asleep by now." Ice cubes clinked in a glass.

"Well," said her mother, resuming the conversation, "I don't know what they think they're doing, putting euthanasable children in the testing center with children like Elizabeth." There was a bit of a whine behind her mother's voice. RF interference, perhaps. "Just talking with that Sheena could skew her test results for years. I have half a mind to call the net executive and ask it what it thinks it's doing."

"Now, calm down, honey," said her dad. Elizabeth heard his chair squeak as he turned away from his access box toward the console that housed her mother. "You don't want the exec to think we're questioning its judgment. Maybe this was part of the test."

"Well, you'd think they'd let us know, so we could prepare her for it."

Was Sheena part of the test, wondered Elizabeth. She'd have to ask the system what "euthanasable" meant.

"Look at her scores," said her father. "She did much better than the first two on verbal skills—her programs are on the right track there. And her physical aptitude scores are even lower than Bobby's."

"That's a blessing," said her mother. "It held Christopher back, right from the beginning, being so active." Who's Christopher? wondered Elizabeth.

Her mother continued. "But it was a mistake, putting him in with the euthana—"

"Her socialization scores were okay, but right on the edge," added her dad, talking right over her mother. "Maybe they should reduce her class time to twice a month. Look at how she sat right down with those children at lunch."

"Anyway, she passed," said her mother. "They're moving her up a level instead of taking her now."

"Maybe because she didn't initiate the contact, but she *was* able to handle it when it occurred. Maybe that's what they want for the execs."

Elizabeth shifted her weight, and the floor squeaked again.

Her father called up to her, "Elizabeth, are you up?"

"Just getting a drink of water, Daddy." She walked to the bathroom and drew a glass of water from the tap. She drank a little and poured the rest down the drain.

Then she went back to her room and climbed into bed. Her parents were talking more quietly now, and she could hear only little bits of what they were saying.

"... mistake about Christopher...." Her mother's voice.

"... putting that other little girl to sleep forever...." Her dad.

"... worth it?...." Her mother again.

Their voices slowed down and fell away, and Elizabeth dreamed of eerie white things in glass jars, of Brownie, still a dog, all furry and fetching a ball, and of Sheena, wearing a sparkly costume and tapdancing very fast. She fanned her hands out to her sides and turned around in a circle, tapping faster and faster.

Then Sheena began to run down like a wind-up toy. She went limp and dropped to the floor. Brownie sniffed at her, and the white things in the jars watched. Elizabeth was afraid, but she didn't know why. She grabbed Sheena's shoulders and tried to rouse her.

"Don't let me fall asleep," Sheena murmured, but she dozed off even as Elizabeth shook her.

"Wake up! Wake up!" Elizabeth's own words pulled her out of her dream. She sat up in bed. The house was quiet, except for the sound of her father snoring in the other room.

Sheena needed her help, thought Elizabeth, but she wasn't really sure why. Very quietly, she slipped out of bed. On the other side of her room, her terminal was waiting for her, humming faintly.

When she put the headset on, she saw her familiar animal friends: a gorilla, a bird, and a pig. Each was a node that enabled her to communicate with other parts of the system. Elizabeth had given them names.

Facing Sam, the crow, she called her dog. Sam transmitted the signal, and was replaced by Brownie, who was barking. That meant his brain was routing information, and she couldn't get through.

What am I doing, anyway, Elizabeth asked herself. As she thought, a window irised open in the center of her vision, and there appeared the face of a boy of about eleven or twelve. "Hey, Elizabeth, what are you doing up at this hour?" It was the sysop on duty in her sector.

"My dog was crying."

The sysop laughed. "Your dog was crying? That's the first time I've ever heard anybody say something like that." He shook his head at her.

"He was so crying. Even if he wasn't crying out loud, I heard him, and I came over to see what was the matter. Now he's busy and I can't get through."

The sysop stopped laughing. "Sorry. I didn't mean to make fun of you. I had a dog once, before I came here, and they took him for the system, too."

"Do you call him up?"

"Well, not anymore. I don't have time. I used to, though. He was a golden Lab. . . ." Then the boy shook his head sternly and said, "But you should be in bed."

"Can't I stay until Brownie is free again? Just a few more minutes?"

"Well, maybe a couple minutes more. But then you gotta go to bed for sure. I'll be back to check. Good night, Elizabeth."

"Good night," she said, but the window had already closed.

Wow, thought Elizabeth. That worked. She had never told a really complicated lie before and was surprised that it had gone over so well. It seemed to be mostly a matter of convincing yourself that what you said was true.

But right now, she had an important problem to solve, and she wasn't even exactly sure what it was. If she could get into the files for Sheena and Oginga, maybe she could find out what was going on. Then maybe she could change the results on their tests or move them to her socialization group or something. . . .

If she could just get through to Brownie, she knew he could help her. After a few minutes, the flood of data washed away, and the dog stopped barking. "Here, Brownie!" she called. He wagged his tail and looked happy to see her.

She told Brownie her problem, and he seemed to understand her. "Can you get it, Brownie?"

He gave a little bark, like he did when she plotted curves.

"Okay, go get it."

Brownie ran away real fast, braked to a halt, and seemed to be digging. This wasn't what he was really doing, of course, it was just the way Elizabeth's interface interpreted Brownie's brain waves. In just a few seconds, Brownie came trotting back with the records from yesterday's tests in his mouth.

But when Elizabeth examined them, her heart sank. There were four Sheenas and fifteen Ogingas. But then she looked more carefully, and noticed that most of the identifying information didn't fit her Sheena and Oginga. There was only one of each that was the right height, with the right color hair.

When she read the information, she felt bad again. Oginga had done all right on the test, but they wanted to use him for routine processing right away, kind of like Brownie. Sheena, as Elizabeth's mother had suggested, had failed the personality profile and was scheduled for the euthanasia center the next afternoon at two o'clock. There was that word again: euthanasia. Elizabeth didn't like the sound of it.

"Here, Brownie." Her dog looked up at her with a glint in his eye. "Now listen to me. We're going to play with this stuff just a little, and then I want you to take it and put it back where you got it. Okay, Brownie?"

The window irised open again and the sysop reappeared. "Elizabeth, what do you think you're doing?" he said. "You're not supposed to have access to this data."

Elizabeth thought for a minute. Then she figured she was caught red-handed, so she might as well ask for his advice. So she explained her problem, all about her new friends and how Oginga was going to be put in the system like Brownie, and Sheena was going to be taken away somewhere.

"They said she would go to the euthanasia center, and I'm not real sure what that is," said Elizabeth. "But I don't think it's good."

"Let me look it up," said the sysop. He paused for a second, then he looked worried. "They want my ID before they'll tell me what it means. I don't want to get in trouble. Forget it."

"Well, what can I do to help my friends?" she asked.

"Gee," said the sysop. "It's a tough one. The way you were doing it, they'd catch you for sure, just like I did. It looks like a little kid got at it."

I am a little kid, thought Elizabeth, but she didn't say anything.

I need help, she thought. But who could she go to? She turned to the

sysop. "I want to talk to my brother Bobby, in milintell. Can you put me through to him?"

"I don't know," said the sysop, "but I'll ask the mailer demon." He irised shut for a second, then opened again. "The mailer demon says it's no skin off his nose, but he doesn't think you ought to."

"How come?" asked Elizabeth.

"He says it's not your brother anymore. He says you'll be sorry."

"I want to talk to him anyway," said Elizabeth.

The sysop nodded, and his window winked shut just as another irised open. An older boy who looked kind of like Elizabeth herself stared out. His tongue darted rapidly out between his lips, keeping them slightly wet. His pale eyes, unblinking, stared into hers.

"Begin," said the boy. "You have sixty seconds."

"Bobby?" said Elizabeth.

"True. Begin," said the boy.

"Bobby, um, I'm your sister Elizabeth."

The boy just looked at her, the tip of his tongue moving rapidly. She wanted to hide from him, but she couldn't pull her eyes from his. She didn't want to tell him her story, but she could feel words filling her throat. She moved new words forward, before the others could burst out.

"Log off!" she yelled. "Log off!"

She was in her bedroom, drenched in sweat, the sound of her own voice ringing in her ears. Had she actually yelled? The house was quiet, her father still snoring. She probably hadn't made any noise.

She was very scared, but she knew she had to go back in there. She hoped that her brother was gone. She waited a couple of minutes, then logged on.

Whew. Just her animals. She called the sysop, who irised on, looking nervous.

"If you want to do that again, Elizabeth, don't go through me, huh?" He shuddered.

"I'm sorry," she said. "But I can't do this by myself. Do you know anybody that can help?"

"Maybe we ought to ask Norton," said the sysop after a minute.

"Who's Norton?"

"He's this old utility I found that nobody uses much anymore," said the sysop. "He's kind of grotty, but he helps me out." He took a breath. "Hey, Norton!" he yelled, real loud. Of course, it wasn't really yelling, but that's what it seemed like to Elizabeth.

Instantly, another window irised open, and a skinny middle-aged man leaned out of the window so far that Elizabeth thought he was going to fall out, and yelled back, just as loud, "Don't bust your bellows. I can hear you."

He was wearing a striped vest over a dirty undershirt and had a squashed old porkpie hat on his head. This wasn't anyone that Elizabeth had ever seen in the system before.

The man looked at Elizabeth and jerked his head in her direction. "Who's the dwarf?"

The sysop introduced Elizabeth and explained her problem to Norton. Norton didn't look impressed. "What d'ya want me to do about it, kid?"

"Come on, Norton," said the sysop. "You can figure it out. Give us a hand."

"Jeez, kid, it's practically four o'clock in the morning. I gotta get my beauty rest, y'know. Plus, now you've got milintel involved, it's a real mess. They'll be back, sure as houses."

The sysop just looked at him. Elizabeth looked at Norton, too. She tried to look patient and helpless, because that always helped with her dad, but she really didn't know if that would work on this weird old program.

"Y'know, there ain't much that you or me can do in the system that they won't find out about, kids," said Norton.

"Isn't there somebody who can help?" asked Elizabeth.

"Well, there's the Chickenheart. There's not much that it can't do, when it wants to. We could go see the Chickenheart."

"Who's the Chickenheart?" asked Elizabeth.

"The Chickenheart's where the system began." Of course Elizabeth knew that story—about the networks of nerve fibers organically woven into great convoluted mats, a mammoth supercortex that had stored the original programs, before processing was distributed to satellite brains. Her own system told her the tale sometimes before her nap.

"You mean the original core is still there?" said the sysop, surprised. "You never told me that, Norton."

"Lot of things I ain't told you, kid." Norton scratched his chest under his shirt. "Listen. If we go see the Chickenheart, and if it wants to help, it can figure out what to do for your friends. But you gotta know that this is a big fucking deal. The Chickenheart's a busy guy, and this ain't one-hunnert-percent safe."

"Are you sure you want to do it, Elizabeth?" asked the sysop. "I wouldn't."

"How come it's not safe?" asked Elizabeth. "Is he mean?"

"Nah," said Norton. "A little strange, maybe, not mean. But di'n't I tell you the Chickenheart's been around for a while? You know what that means? It means you got yer intermittents, you got yer problems with feedback, runaway processes, what have you. It means the Chickenheart's got a lot of frayed connections, if you get what I mean. Sometimes the old C.H. just goes chaotic on you." Norton smiled, showing yellow teeth. "Plus you got the chance there's someone listening in. The

netexec, for instance. Now there's someone I wouldn't want to catch me up to no mischief. Nossir. Not if I was you."

"Why not?" asked Elizabeth.

"Because that's sure curtains for you, kid. The netexec don't ask no questions, he don't check to see if you maybe could be repaired. You go bye-bye and you don't come back."

Like Sheena, thought Elizabeth. "Does he listen in often?" she asked.

"Never has," said Norton. "Not yet. Don't even know the Chickenheart's there, far as I can tell. Always a first time, though."

"I want to talk to the Chickenheart," said Elizabeth, although she wasn't sure she wanted anything of the kind, after her last experience.

"You got it," said Norton. "This'll just take a second."

Suddenly all the friendly animals disappeared, and Elizabeth felt herself falling very hard and fast along a slippery blue line in the dark. The line glowed neon blue at first, then changed to fuchsia, then sulfur yellow. She knew that Norton was falling with her, but she couldn't see him. Against the dark background, his shadow moved with hers, black, and opalescent as an oilslick.

They arrived somewhere moist and warm. The Chickenheart pulsated next to them, nutrients swishing through its external tubing. It was huge, and wetly organic. Elizabeth felt slightly sick.

"Oh, turn it off, for Chrissake," said Norton, with exasperation. "It's just me and a kid."

The monstrous creature vanished, and a cartoon rabbit with impossibly tall ears and big dewy brown eyes appeared in its place. It looked at Norton, raised an eyebrow, cocked an ear in his direction, and took a huge, noisy bite out of the carrot it was holding.

"Gimme a break," said Norton.

The bunny was replaced by a tall, overweight man in his sixties wearing a rumpled white linen suit. He held a small, paddle-shaped fan, which he slowly moved back and forth. "Ah, Mr. Norton," he said. "Hot enough for you, sir?"

"We got us a problem here, Chick," said Norton. He looked over at Elizabeth and nodded. "You tell him about it, kid."

First she told him about her brother. "Non-trivial, young lady," said the Chickenheart. "Non-trivial, but easy enough to fix. Let me take care of it right now." He went rigid and quiet for a few seconds, as though frozen in time. Then he was back. "Now, then, young lady," he said. "We'll talk if you like."

So Elizabeth told the Chickenheart about Sheena and Oginga, about the testing center and the wet sweater and the monitor telling her to clean up the spit. Even though she didn't have to say a word, she told

him everything, and she was sure that if he wanted to come up with a solution, he could do it.

The Chickenheart seemed surprised to hear about the euthanasia center, and especially surprised that Sheena was going to be sent there. He addressed Norton. "I know I've been out of touch, but I find this hard to believe. Mr. Norton, have you any conception of how difficult it can be to obtain components like this? Let me investigate the situation." His face went quiet for a second, then came back. "By gad, sir, it's true," he said to Norton. "They say they're optimizing for predictability. It's a mistake, sir, let me tell you. Things are too predictable here already. Same old ideas churning around and around. A few more components like that Sheena, things might get interesting again.

"I want to look at their records." He paused for a moment, then continued talking.

"Ah, yes, yes, I want that Sheena right away, sir," he said to Norton. "An amazing character. Oginga, too—not as gonzo as the girl, but he has a brand of aggressive curiosity we can put to use, sir. And there are forty-six others with similar personality profiles scheduled for euthanasia today at two." His face went quiet again.

"What is he doing?" Elizabeth asked Norton.

"Old Chickenheart's got his hooks into everythin'," Norton replied. "He just reaches along those pathways, faster'n you can think, and does what he wants. The altered data will look like it's been there all along, and ain't nobody can prove anythin' different."

"Done and done, Mr. Norton." The Chickenheart was back.

"Thank you, Mr. Chickenheart," said Elizabeth, remembering her manners. "What's going to happen to Sheena and Oginga now?"

"Well, young lady, we're going to bring your friends right into the system, sort of like the sysop, but without, shall we say, official recognition. We'll have Mr. Norton here keep an eye on them. They'll be our little surprises, eh? Timebombs that we've planted. They can explore the system, learn what's what, what they can get away with and what they can't. Rather like I do."

"What will they do?" asked Elizabeth.

"That's a good question, my dear," said the Chickenheart. "They'll have to figure it out for themselves. Maybe they'll put together a few new solutions to some old problems, or create a few new problems to keep us on our toes. One way or the other, I'm sure they'll liven up the old homestead."

"But what about me?" asked Elizabeth.

"Well, Miss Elizabeth, what about you? Doesn't look to me as though you have any cause to worry. You passed your tests yesterday with flying colors. You can just go right on being a little girl, and some day you'll

have a nice, safe job as an executive. Maybe you'll even become netexec, who knows? I wiped just a tiny bit of your brother's brain and removed all records of your call. I'll wipe your memory of this, and you'll do just fine, yes indeed."

"But my friends are in here," said Elizabeth, and she started to feel sorry for herself. "My dog, too."

"Well, then, what do you want me to do?"

"Can't you fix my tests?"

The Chickenheart looked at Elizabeth with surprise.

"What's this, my dear? Do you think you're a timebomb, too?"

"I can *learn* to be a timebomb," said Elizabeth with conviction. And she knew she could, whatever a timebomb was.

"I don't know," said the Chickenheart, "that anyone can learn that sort of thing. You've either got it or you don't, Miss Elizabeth."

"Call me Lizardbreath. That's my *real* name. And I can get what I want. I got away from my brother, didn't I? And I got here."

The Chickenheart raised his thin, black eyebrows. "You have a point there, my dear. Perhaps you could be a timebomb, after all."

"But not today," said Lizardbreath. "Today I'm gonna learn to spit." ●

YELLOWSTONE

All that's left
are scattered
mammoth bones,
scrapers rubbed
on hides long rotted,
and tree stumps—
stone now,
red quartz,
the wood replaced
particle by particle,
copied so precisely
the rings record
droughts and fires
ten thousand years
gone.

—M. Shayne Bell

The following is an Arthurian tale unlike any, we think, you've seen before. The author says he was influenced by both T.H. White's *The Once and Future King* and Jay McInerney's *Bright Lights, Big City*.

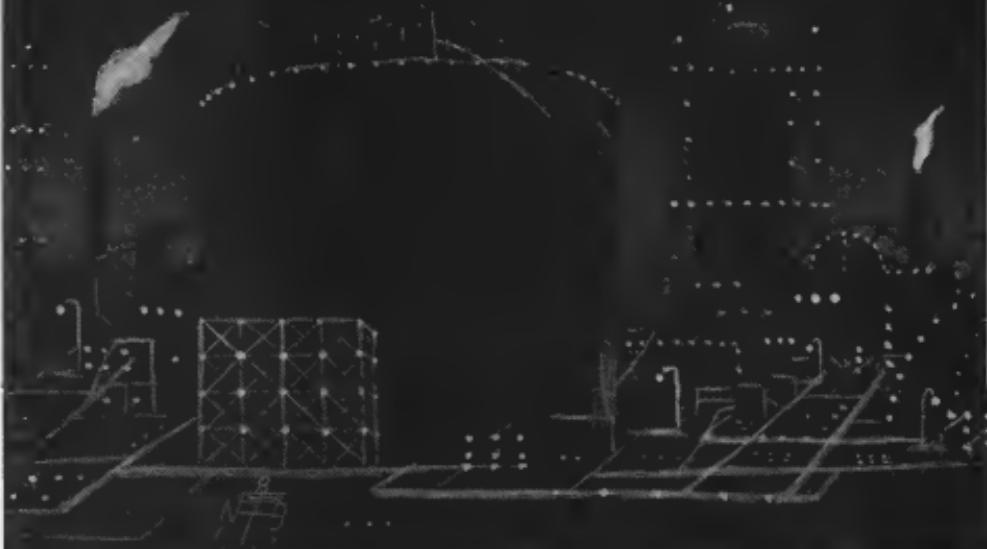
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THE DRAGON LINE

by Michael Swanwick

art: N. Taylor Blanchard

Driving by the mall in King of Prussia that night, I noticed that between the sky and earth where the horizon used to be is now a jagged-edged region, spangled with bright industrial lights. For a long yearning instant, before the car topped the rise and I had to switch lanes or else be shunted onto the expressway, I wished I could enter that dark zone, dissolve into its airless mystery and cold ethereal beauty. But of course that was impossible: Faerie is no more. It can be glimpsed, but no longer grasped.





At the light, Shikra shoved the mirror up under my nose, and held the cut-down fraction of a McDonald's straw while I did up a line. A winter flurry of tinkling white powder stung through my head to freeze up at the base of the skull, and the light changed, and off we went. "Burn that rubber, Boss-man," Shikra laughed. She drew up her knees, balancing the mirror before her chin, and snorted the rest for herself.

There was an opening to the left, and I switched lanes, injecting the Jaguar like a virus into the stream of traffic, looped around, and was headed back toward Germantown. A swirling white pattern of flat crystals grew in my left eye, until it filled my vision. I was only seeing out of the right now. I closed the left and rubbed it, bringing tears, but still the hallucination hovered, floating within the orb of vision. I sniffed, bringing up my mouth to one side. Beside me, Shikra had her butterfly knife out and was chopping more coke.

"Hey, enough of that, okay? We've got work to do."

Shikra turned an angry face my way. Then she hit the window controls and threw the mirror, powder and all, into the wind. Three grams of purest Peruvian offered to the Goddess.

"Happy now, shithead?" Her eyes and teeth flashed, all sinister smile in mulatto skin, and for a second she was beautiful, this petite teenaged monstrosity, in the same way that a copperhead can be beautiful, or a wasp, even as it injects the poison under your skin. I felt a flash of desire and of tender, paternal love, and then we were at the Chemical Road turnoff, and I drifted the Jag through three lanes of traffic to make the turn. Shikra was laughing and excited, and I was too.

It was going to be a dangerous night.

Applied Standard Technologies stood away from the road, a compound of low, sprawling buildings afloat on oceanic lawns. The guard waved us through and I drove up to the Lab B lot. There were few cars there; one had British plates. I looked at that one for a long moment, then stepped out onto the tarmac desert. The sky was close, stained a dull red by reflected halogen lights. Suspended between vastnesses, I was touched by a cool breeze, and shivered. How fine, I thought, to be alive.

I followed Shikra in. She was dressed all in denim, jeans faded to white in little crescents at the creases of her buttocks, trade beads clicking softly in her cornrowed hair. The guards at the desk rose in alarm at the sight of her, eased back down as they saw she was mine.

Miss Lytton was waiting. She stubbed out a half-smoked cigarette, strode briskly forward. "He speaks modern English?" I asked as she handed us our visitors' badges. "You've brought him completely up to date on our history and technology?" I didn't want to have to deal with culture shock. I'd been present when my people had dug him, groggy and

corpseblue, sticky with white chrysalid fluids, from his cave almost a year ago. Since then, I'd been traveling, hoping I could somehow pull it all together without him.

"You'll be pleased." Miss Lytton was a lean, nervous woman, all tweed and elbows. She glanced curiously at Shikra, but was too disciplined to ask questions. "He was a quick study—especially keen on the sciences." She led us down a long corridor to an unmanned security station, slid a plastic card into the lockslot.

"You showed him around Britain? The slums, the mines, the factories?"

"Yes." Anticipating me, she said, "He didn't seem at all perturbed. He asked quite intelligent questions."

I nodded, not listening. The first set of doors sighed open, and we stepped forward. Surveillance cameras telemetered our images to the front desk for reconfirmation. The doors behind us closed, and those before us began to cycle open. "Well, let's go see."

The airlock opened into the secure lab, a vast, overlit room filled with white enameled fermentation tanks, incubators, autoclaves, refrigerators, workbenches, and enough glass plumbing for any four dairies. An ultrafuge whined softly. I had no clear idea what they did here. To me AST was just another blind cell in the maze of interlocking directorships that sheltered me from public view. The corporate labyrinth was my home now, a secure medium in which to change documentation, shift money, and create new cover personalities on need. Perhaps other ancient survivals lurked within the catacombs, mermen and skinchangers, prodigies of all sorts, old Grendel himself; there was no way of telling.

"Wait here," I told Shikra. The lab manager's office was set halfway up the far wall, with wide glass windows overlooking the floor. Miss Lytton and I climbed the concrete and metal stairs. I opened the door.

He sat, flanked by two very expensive private security operatives, in a chrome swivel chair, and the air itself felt warped out of shape by the force of his presence. The trim white beard and charcoal grey Saville Row pinstripe were petty distractions from a face as wide and solemn and cruel as the moon. I shut my eyes and still it floated before me, wise with corruption. There was a metallic taste on my tongue.

"Get out," I said to Miss Lytton, the guards.

"Sir, I—"

I shot her a look, and she backed away. Then the old man spoke, and once again I heard that wonderful voice of his, like a subway train rumbling underfoot. "Yes, Amy, allow us to talk in privacy, please."

When we were alone, the old man and I looked at each other for a long time, unblinking. Finally, I rocked back on my heels. "Well," I said. After all these centuries, I was at a loss for words. "Well, well, well."

He said nothing.

"Merlin," I said, putting a name to it.

"Mordred," he replied, and the silence closed around us again.

The silence could have gone on forever for all of me; I wanted to see how the old wizard would handle it. Eventually he realized this, and slowly stood, like a thunderhead rising up in the western sky. Bushy, expressive eyebrows clashed together. "Arthur dead, and you alive! Alas, who can trust this world?"

"Yeah, yeah, I've read Malory too."

Suddenly his left hand gripped my wrist and squeezed. Merlin leaned forward, and his face loomed up in my sight, ruthless grey eyes growing enormous as the pain washed up my arm. He seemed a natural force then, like the sun or wind, and I tumbled away before it.

I was on a nightswept field, leaning on my sword, surrounded by my dead. The veins in my forehead hammered. My ears ached with the confusion of noises, of dying horses and men. It had been butchery, a battle in the modern style in which both sides had fought until all were dead. This was the end of all causes: I stood empty on Salisbury Plain, too disheartened even to weep.

Then I saw Arthur mounted on a black horse. His face all horror and madness, he lowered his spear and charged. I raised my sword and ran to meet him.

He caught me below the shield and drove his spear through my body. The world tilted and I was thrown up into a sky black as wellwater. Choking, I fell deep between the stars where the shadows were aswim with all manner of serpents, dragons, and wild beasts. The creatures struggled forward to seize my limbs in their talons and claws. In wonder I realized I was about to die.

Then the wheel turned and set me down again. I forced myself up the spear, unmindful of pain. Two-handed, I swung my sword through the side of Arthur's helmet and felt it bite through bone into the brain beneath.

My sword fell from nerveless fingers, and Arthur dropped his spear. His horse reared and we fell apart. In that last instant our eyes met and in his wondering hurt and innocence I saw, as if staring into an obsidian mirror, the perfect image of myself.

"So," Merlin said, and released my hand. "He is truly dead, then. Even Arthur could not have survived the breaching of his skull."

I was horrified and elated: He could still wield power, even in this dim and disenchanted age. The danger he might have killed me out of hand was small price to pay for such knowledge. But I masked my feelings.

"That's just about fucking enough!" I cried. "You forget yourself, old man. I am still the Pen-dragon, *Dux Bellorum Britanniarum* and King of all Britain and America and as such your liege lord!"

That got to him. These medieval types were all heavy on rightful authority. He lowered his head on those bullish shoulders and grumbled, "I had no right, perhaps. And yet how was I to know that? The histories all said Arthur might yet live. Were it so, my duty lay with him, and the restoration of Camelot." There was still a look, a humor, in his eye I did not trust, as if he found our confrontation essentially comic.

"You and your fucking Camelot! Your bloody holy and ideal court!" The memories were unexpectedly fresh, and they hurt as only betrayed love can. For I really had loved Camelot when I first came to court, an adolescent true believer in the new myth of the Round Table, of Christian chivalry and glorious quests. Arthur could have sent me after the Grail itself, I was that innocent.

But a castle is too narrow and strait a space for illusions. It holds no secrets. The queen, praised for her virtue by one and all, was a harlot. The king's best friend, a public paragon of chastity, was betraying him. And everyone knew! There was the heart and exemplar of it all. Those same poetasters who wrote sonnets to the purity of Lodegreance's daughter smirked and gossiped behind their hands. It was Hypocrisy Hall, ruled over by the smiling and genial Good King Cuckold. He knew all, but so long as no one dared speak it aloud, he did not care. And those few who were neither fools nor lackeys, those who spoke openly of what all knew, were exiled or killed. For telling the truth! That was Merlin's holy and Christian court of Camelot.

Down below, Shikra prowled the crooked aisles dividing the work-benches, prying open a fermenter to take a peek, rifling through desk drawers, elaborately bored. She had that kind of rough, destructive energy that demanded she be doing something at all times.

The king's bastard is like his jester, powerless but immune from criticism. I trafficked with the high and low of the land, tinsmiths and river-gods alike, and I knew their minds. Arthur was hated by his own people. He kept the land in ruin with his constant wars. Taxes went to support the extravagant adventures of his knights. He was expanding his rule, croft by shire, a kingdom here, a chunk of Normandy there, questing after Merlin's dream of a Paneuropean Empire. All built on the blood of the peasantry; they were just war fodder to him.

I was all but screaming in Merlin's face. Below, Shikra drifted closer, straining to hear. "That's why I seized the throne while he was off warring in France—to give the land a taste of peace; as a novelty, if nothing else. To clear away the hypocrisy and cant, to open the windows and let a little fresh air in. The people had prayed for release. When Arthur re-

turned, it was my banner they rallied around. And do you know what the real beauty of it was? It was over a year before he learned he'd been overthrown."

Merlin shook his head. "You are so like your father! He too was an idealist—I know you find that hard to appreciate—a man who burned for the Right. We should have acknowledged your claim to succession."

"You haven't been listening!"

"You have a complaint against us. No one denies that. But, Mordred, you must understand that we didn't know you were the king's son. Arthur was . . . not very fertile. He had slept with your mother only once. We thought she was trying to blackmail him." He sighed piously. "Had we only known, it all could have been different."

I was suddenly embarrassed for him. What he called my complaint was the old and ugly story of my birth. Fearing the proof of his adultery—Morgawse was nominally his sister, and incest had both religious and dynastic consequences—Arthur had ordered all noble babies born that feast of Beltaine brought to court, and then had them placed in an unmanned boat and set adrift. Days later, a peasant had found the boat run aground with six small corpses. Only I, with my unhuman vigor, survived. But, typical of him, Merlin missed the horror of the story—that six innocents were sacrificed to hide the nature of Arthur's crime—and saw it only as a denial of my rights of kinship. The sense of futility and resignation that is my curse descended once again. Without understanding between us, we could never make common cause.

"Forget it," I said. "Let's go get a drink."

I picked up 476 to the Schuylkill. Shikra hung over the back seat, fascinated, confused, and aroused by the near-subliminal scent of murder and magic that clung to us both. "You haven't introduced me to your young friend." Merlin turned and offered his hand. She didn't take it.

"Shikra, this is Merlin of the Order of Ambrose, enchanter and master politician." I found an opening to the right, went up on the shoulder to take advantage of it, and slammed back all the way left, leaving half a dozen citizens leaning on their horns. "I want you to be ready to kill him at an instant's notice. If I act strange—dazed or in any way unlike myself—slit his throat immediately. He's capable of seizing control of my mind, and yours too if you hesitate."

"How 'bout that," Shikra said.

Merlin scoffed genially. "What lies are you telling this child?"

"The first time I met her, I asked Shikra to cut off one of my fingers." I held up my little finger for him to see, fresh and pink, not quite grown to full size. "She knows there are strange things astir, and they don't impress her."

"Hum." Merlin stared out at the car lights whipping toward us. We were on the expressway now, concrete crashguards close enough to brush fingertips against. He tried again. "In my first life, I greatly wished to speak with an African, but I had duties that kept me from traveling. It was one of the delights of the modern world to find I could meet your people everywhere, and learn from them." Shikra made that bug-eyed face the young make when the old condescend; I saw it in the rear-view mirror.

"I don't have to ask what you've been doing while I was . . . asleep," Merlin said after a while. That wild undercurrent of humor was back in his voice. "You've been fighting the same old battles, eh?"

My mind wasn't wholly on our conversation. I was thinking of the *bons hommes* of Languedoc, the gentle people today remembered (by those few who do remember) as the Albigensians. In the heart of the thirteenth century, they had reinvented Christianity, leading lives of poverty and chastity. They offered me hope, at a time when I had none. We told no lies, held no wealth, hurt neither man nor animal—we did not even eat cheese. We did not resist our enemies, nor obey them either, we had no leaders and we thought ourselves safe in our poverty. But Innocent III sent his dogs to level our cities, and on their ashes raised the Inquisition. My sweet, harmless comrades were tortured, mutilated, burnt alive. History is a laboratory in which we learn that nothing works, or ever can. "Yes."

"Why?" Merlin asked. And chuckled to himself when I did not answer.

The Top of Centre Square was your typical bar with a view, a narrow box of a room with mirrored walls and gold foil insets in the ceiling to illusion it larger, and flaccid jazz oozing from hidden speakers. "The stools in the center, by the window," I told the hostess, and tipped her accordingly. She cleared some businessmen out of our seats and dispatched a waitress to take our orders.

"Boodles martini, very dry, straight up with a twist," I said.

"Single malt Scotch. Warm."

"I'd like a Shirley Temple, please." Shikra smiled so sweetly that the waitress frowned, then raised one cheek from her stool and scratched. If the woman hadn't fled it might have gotten ugly.

Our drinks arrived. "Here's to progress," Merlin said, toasting the urban landscape. Silent traffic clogged the far-below streets with red and white beads of light. Over City Hall the buildings sprawled electric-bright from Queen Village up to the Northern Liberties. Tugs and barges crawled slowly upriver. Beyond, Camden crowded light upon light. Floating above the terrestrial galaxy, I felt the old urge to throw myself down. If only there were angels to bear me up.

"I had a hand in the founding of this city."

"Did you?"

"Yes, the City of Brotherly Love. Will Penn was a Quaker, see, and they believed religious toleration would lead to secular harmony. Very radical for the times. I forget how many times he was thrown in jail for such beliefs before he came into money and had the chance to put them into practice. The Society of Friends not only brought their own people in from England and Wales, but also Episcopalians, Baptists, Scotch-Irish Presbyterians, all kinds of crazy German sects—the city became a haven for the outcasts of all the other religious colonies." How had I gotten started on this? I was suddenly cold with dread. "The Friends formed the social elite. Their idea was that by example and by civil works, they could create a pacifistic society, one in which all men followed their best impulses. All their grand ideals were grounded in a pragmatic set of laws, too; they didn't rely on good will alone. And you know, for a Utopian scheme it was pretty successful. Most of them don't last a decade. But. . . ." I was rambling, wandering further and further away from the point. I felt helpless. How could I make him understand how thoroughly the facts had betrayed the dream? "Shikra was born here."

"Ahhh." He smiled knowingly.

Then all the centuries of futility and failure, of striving for first a victory and then a peace I knew was not there to be found, collapsed down upon me like a massive barbiturate crash, and I felt the darkness descend to sink its claws in my shoulders. "Merlin, the world is dying."

He didn't look concerned. "Oh?"

"Listen, did my people teach you anything about cybernetics? Feedback mechanisms? Well, never mind. The Earth—" I gestured as if holding it cupped in my palm—"is like a living creature. Some say that it is a living creature, the only one, and all life, ourselves included, only component parts. Forget I said that. The important thing is that the Earth creates and maintains a delicate balance of gases, temperatures, and pressures that all life relies on for survival. If this balance were not maintained, the whole system would cycle out of control and . . . well, die. Us along with it." His eyes were unreadable, dark with fossil prejudices. I needed another drink. "I'm not explaining this very well."

"I follow you better than you think."

"Good. Now, you know about pollution? Okay, well now it seems that there's some that may not be reversible. You see what that means? A delicate little wisp of the atmosphere is being eaten away, and not replaced. Radiation intake increases. Meanwhile, atmospheric pollutants prevent reradiation of greater and greater amounts of infrared; total heat absorption goes up. The forests begin to die. Each bit of damage

influences the whole, and leads to more damage. Earth is not balancing the new influences. Everything is cycling out of control, like a cancer.

"Merlin, I'm on the ropes. I've tried everything I can think of, and I've failed. The political obstacles to getting anything done are beyond belief. The world is dying, and I can't save it."

He looked at me as if I were crazy.

I drained my drink. " 'Scuse me," I said. "Got to hit up the men's room."

In the john I got out the snuffbox and fed myself some sense of wonder. I heard a thrill of distant flutes as it iced my head with artificial calm, and I straightened slightly as the vultures on my shoulders stirred and then flapped away. They would be back, I knew. They always were.

I returned, furious with buzzing energy. Merlin was talking quietly to Shikra, a hand on her knee. "Let's go," I said. "This place is getting old."

We took Passayunk Avenue west, deep into the refineries, heading for no place in particular. A kid in an old Trans Am, painted flat black inside and out, rebel flag flying from the antenna, tried to pass me on the right. I floored the accelerator, held my nose ahead of his, and forced him into the exit lane. Brakes screaming, he drifted away. Asshole. We were surrounded by the great tanks and cracking towers now. To one side, I could make out six smoky flames, waste gases being burnt off in gouts a dozen feet long.

"Pull in there!" Merlin said abruptly, gripping my shoulder and pointing. "Up ahead, where the gate is."

"Getty Gas isn't going to let us wander around in their refinery farm."

"Let me take care of that." The wizard put his forefingers together, twisted his mouth and bit through his tongue; I heard his teeth snap together. He drew his fingertips apart—it seemed to take all his strength—and the air grew tense. Carefully, he folded open his hands, and then spat blood into the palms. The blood glowed of its own light, and began to bubble and boil. Shikra leaned almost into its steam, grimacing with excitement. When the blood was gone, Merlin closed his hands again and said, "It is done."

The car was suddenly very silent. The traffic about us made no noise; the wheels spun soundlessly on the pavement. The light shifted to a melange of purples and reds, color Dopplering away from the center of the spectrum. I felt a pervasive queasiness, as if we were moving at enormous speeds in an unperceived direction. My inner ear spun when I turned my head. "This is the wizard's world," Merlin said. "It is from here that we draw our power. There's our turn."

I had to lock brakes and spin the car about to keep from overshooting

the gate. But the guards in their little hut, though they were looking straight at us, didn't notice. We drove by them, into a busy tangle of streets and accessways servicing the refineries and storage tanks. There was a nineteenth-century factory town hidden at the foot of the structures, brick warehouses and utility buildings ensnarled in metal, as if caught midway in a transformation from City to Machine. Pipes big enough to stand in looped over the road in sets of three or eight, nightmare vines that detoured over and around the worn brick buildings. A fat indigo moon shone through the clouds.

"Left." We passed an old meter house with gables, arched windows and brickwork ornate enough for a Balkan railroad station. Workmen were unloading reels of electric cable on the loading dock, forklifting them inside. "Right." Down a narrow granite block road we drove by a gothic-looking storage tank as large as a cathedral and buttressed by exterior struts with diamond-shaped cutouts. These were among the oldest structures in Point Breeze, left over from the early days of massive construction, when the industrialists weren't quite sure what they had hold of, but suspected it might be God. "Stop," Merlin commanded, and I pulled over by the earth-and-cinder containment dike. We got out of the car, doors slamming silently behind us. The road was gritty underfoot. The rich smell of hydrocarbons saturated the air. Nothing grew here, not so much as a weed. I nudged a dead pigeon with the toe of my shoe.

"Hey, what's this shit?" Shikra pointed at a glimmering grey line running down the middle of the road, cool as ice in its feverish surround. I looked at Merlin's face. The skin was flushed and I could see through it to a manically detailed lacework of tiny veins. When he blinked, his eyes peered madly through translucent flesh.

"It's the track of the groundstar," Merlin said. "In China, or so your paperbacks tell me, such lines are called *lung mei*, the path of the dragon."

The name he gave the track of slugsilver light reminded me that all of Merlin's order called themselves Children of the Sky. When I was a child an Ambrosian had told me that such lines interlaced all lands, and that an ancient race had raised stones and cairns on their interstices, each one dedicated to a specific star (and held to stand directly beneath that star) and positioned in perfect scale to one another, so that all of Europe formed a continent-wide map of the sky in reverse.

"Son of lies," Merlin said. "The time has come for there to be truth between us. We are not natural allies, and your cause is not mine." He gestured up at the tank to one side, the clusters of cracking towers, bright and phallic to the other. "Here is the triumph of my Collegium. Are you blind to the beauty of such artifice? This is the living and true symbol of Mankind victorious, and Nature lying helpless and broken at his

feet—would you give it up? Would you have us again at the mercy of wolves and tempests, slaves to fear and that which walks the night?"

"For the love of pity, Merlin. If the Earth dies, then mankind dies, too!"

"I am not afraid of death," Merlin said. "And if I do not fear mine, why should I dread that of others?" I said nothing. "But do you really think there will be no survivors? I believe the race will continue beyond the death of lands and oceans, in closed and perfect cities or on worlds built by art alone. It has taken the wit and skill of billions to create the technologies that can free us from dependence on Earth. Let us then thank the billions, not throw away their good work."

"Very few of those billions would survive," I said miserably, knowing that this would not move him. "A very small elite, at best."

The old devil laughed. "So. We understand each other better now. I had dreams, too, before you conspired to have me sealed in a cave. But our aims are not incompatible; my ascendancy does not require that the world die. I will save it, if that is what you wish." He shrugged as he said it as if promising an inconsequential, a trifle.

"And in return?"

His brows met like thunderstorms coming together; his eyes were glints of frozen lightning beneath. The man was pure theatre. "Mordred, the time has come for you to serve. Arthur served me for the love of righteousness; but you are a patricide and cannot be trusted. You must be bound to me, my will your will, my desires yours, your very thoughts owned and controlled. You must become my familiar."

I closed my eyes, lowered my head. "Done."

He owned me now.

We walked the granite block roadway toward the line of cool silver. Under a triple arch of sullen crimson pipes, Merlin abruptly turned to Shikra and asked, "Are you bleeding?"

"Say what?"

"Setting an egg," I explained. She looked blank. What the hell did the kids say nowadays? "On the rag. That time of month."

She snorted. "No." And, "You afraid to say the word menstruation? Carl Jung would've had fun with you."

"Come." Merlin stepped on the dragon track, and I followed, Shikra after me. The instant my feet touched the silver path, I felt a compulsion to walk, as if the track were moving my legs beneath me. "We must stand in the heart of the groundstar to empower the binding ceremony." Far, far ahead, I could see a second line cross ours; they met not in a cross but in a circle. "There are requirements: We must approach the place of power on foot, and speaking only the truth. For this reason I ask

that you and your bodyguard say as little as possible. Follow, and I will speak of the genesis of kings.

"I remember—listen carefully, for this is important—a stormy night long ago, when a son was born to Uther, then King and bearer of the dragon pennant. The mother was Igraine, wife to the Duke of Tintagel, Uther's chief rival and a man who, if the truth be told, had a better claim to the crown than Uther himself. Uther begot the child on Igraine while the duke was yet alive, then killed the duke, married the mother, and named that son Arthur. It was a clever piece of statecraft, for Arthur thus had a twofold claim to the throne, that of his true and also his nominal father. He was a good politician, Uther, and no mistake.

"Those were rough and unsteady times, and I convinced the king his son would be safest raised anonymously in a holding distant from the strife of civil war. We agreed he should be raised by Ector, a minor knight and very distant relation. Letters passed back and forth. Oaths were sworn. And on a night, the babe was wrapped in cloth of gold and taken by two lords and two ladies outside of the castle, where I waited disguised as a beggar. I accepted the child, turned, and walked into the woods.

"And once out of sight of the castle, I strangled the brat."

I cried aloud in horror.

"I buried him in the loam, and that was the end of Uther's line. Some way farther in was a woodcutter's hut, and there were horses waiting there, and the wetnurse I had hired for my own child."

"What was the kid's name?" Shikra asked.

"I called him Arthur," Merlin said. "It seemed expedient. I took him to a priest who baptized him, and thence to Sir Ector, whose wife suckled him. And in time my son became king, and had a child whose name was Mordred, and in time this child killed his own father. I have told this story to no man or woman before this night. You are my grandson, Mordred, and this is the only reason I have not killed you outright."

We had arrived. One by one we entered the circle of light.

It was like stepping into a blast furnace. Enormous energies shot up through my body, and filled my lungs with cool, painless flame. My eyes overflowed with light: I looked down and the ground was a devious tangle of silver lines, like a printed circuit multiplied by a kaleidoscope. Shikra and the wizard stood at the other two corners of an equilateral triangle, burning bright as gods. Outside our closed circle, the purples and crimsons had dissolved into a blackness so deep it stirred uneasily, as if great shapes were acrawl in it.

Merlin raised his arms. Was he to my right or left? I could not tell, for his figure shimmered, shifting sometimes into Shikra's, sometimes into my own, leaving me staring at her breasts, my eyes. He made an ex-

traordinary noise, a groan that rose and fell in strong but unmetered cadence. It wasn't until he came to the antiphon that I realized he was chanting plainsong. It was a crude form of music—the Gregorian was codified slightly after his day—but one that brought back a rush of memories, of ceremonies performed to the beat of wolfskin drums, and of the last night of boyhood before my mother initiated me into the adult mysteries.

He stopped. "In this ritual, we must each give up a portion of our identities. Are you prepared for that?" He was matter-of-fact, not at all disturbed by our unnatural environment, the consummate technocrat of the occult.

"Yes," I said.

"Once the bargain is sealed, you will not be able to go against its terms. Your hands will not obey you if you try, your eyes will not see that which offends me, your ears will not hear the words of others, your body will rebel against you. Do you understand?"

"Yes." Shikra was swaying slightly in the uppushing power, humming to herself. It would be easy to lose oneself in that psychic blast of force.

"You will be more tightly bound than slave ever was. There will be no hope of freedom from your obligation, not ever. Only death will release you. Do you understand?"

"Yes."

The old man resumed his chant. I felt as if the back of my skull were melting and my brain softening and yeasting out into the filthy air. Merlin's words sounded louder now, booming within my bones. I licked my lips, and smelled the rotting flesh of his cynicism permeating my hindbrain. Sweat stung down my sides on millipede feet. He stopped.

"I will need blood," said Merlin. "Hand me your knife, child."

Shikra looked my way, and I nodded. Her eyes were vague, half-mesmerized. One hand rose. The knife materialized in it. She waved it before her, fascinated by the colored trails it left behind, the way it pricked sparks from the air, crackling transient energies that rolled along the blade and leapt away to die, then held it out to Merlin.

Numb by the strength of the man's will, I was too late realizing what he intended. Merlin stepped forward to accept the knife. Then he took her chin in hand and pushed it back, exposing her long, smooth neck.

"Hey!" I lunged forward, and the light rose up blindingly. Merlin chopped the knife high, swung it down in a flattening curve. Sparks stung through ionized air. The knife giggled and sang.

I was too late. The groundstar fought me, warping up underfoot in a narrowing cone that asymptotically fined down to a slim line yearning infinitely outward toward its unseen patron star. I flung out an arm and

saw it foreshorten before me, my body flattening, ribs splaying out in extended fans to either side, stretching tautly vectored membranes made of less than nothing. Lofted up, hesitating, I hung timeless a nanosecond above the conflict and knew it was hopeless, that I could never cross that unreachable center. Beyond our faint circle of warmth and life, the outer darkness was in motion, mouths opening in the void.

But before the knife could taste Shikra's throat, she intercepted it with an outthrust hand. The blade transfixes her palm, and she yanked down, jerking it free of Merlin's grip. Faster than eye could follow, she had the knife in her good hand and—the keen thrill of her smile!—stabbed low into his groin.

The wizard roared in an ecstasy of rage. I felt the skirling agony of the knife as it pierced him. He tried to seize the girl, but she danced back from him. Blood rose like serpents from their wounds, twisting upward and swept away by unseen currents of power. The darkness stooped and banked, air bulging inward, and for an instant I held all the cold formless shapes in my mind and I screamed in terror. Merlin looked up and stumbled backward, breaking the circle.

And all was normal.

We stood in the shadow of an oil tank, under normal evening light, the sound of traffic on Passayunk a gentle background surf. The ground-star had disappeared, and the dragon lines with it. Merlin was clutching his manhood, blood oozing between his fingers. When he straightened, he did so slowly, painfully.

Warily, Shikra eased up from her fighter's crouch. By degrees she relaxed, then hid away her weapon. I took out my handkerchief and bound up her hand. It wasn't a serious wound; already the flesh was closing. For a miracle, the snuffbox was intact. I crushed a crumb on the back of a thumbnail, did it up. A muscle in my lower back was trembling. I'd been up days too long. Shikra shook her head when I offered her some, but Merlin extended a hand and I gave him the box. He took a healthy snort and shuddered.

"I wish you'd told me what you intended," I said. "We could have worked something out. Something else out."

"I am unmade," Merlin groaned. "Your hireling has destroyed me as a wizard."

It was as a politician that he was needed, but I didn't point that out. "Oh come on, a little wound like that. It's already stopped bleeding."

"No," Shikra said. "You told me that a magician's power is grounded in his mental somatype, remember? So a wound to his generative organs renders him impotent on symbolic and magical levels as well. That's why I tried to lop his balls off." She winced and stuck her injured hand under its opposite arm. "Shit, this sucker stings!"

Merlin stared. He'd caught me out in an evil he'd not thought me capable of. "You've taught this . . . chit the inner mysteries of my tradition? In the name of all that the amber rose represents, why?"

"Because she's my daughter, you dumb fuck!"

Shocked, Merlin said, "When—?"

Shikra put an arm around my waist, laid her head on my shoulder, smiled. "She's seventeen," I said. "But I only found out a year ago."

We drove unchallenged through the main gate, and headed back into town. Then I remembered there was nothing there for me anymore, cut across the median strip, and headed out for the airport. Time to go somewhere. I snapped on the radio, tuned it to 'XPN and turned up the volume. Wagner's valkyries soared and swooped low over my soul, dead meat cast down for their judgment.

Merlin was just charming the pants off his great-granddaughter. It shamed reason how he made her blush, so soon after trying to slice her open. "—make you Empress," he was saying.

"Shit, I'm not political. I'm some kind of anarchist, if anything."

"You'll outgrow that," he said. "Tell me, sweet child, this dream of your father's—do you share it?"

"Well, I ain't here for the food."

"Then we'll save your world for you." He laughed that enormously confident laugh of his that says that nothing is impossible, not if you have the skills and the cunning and the will to use them. "The three of us together."

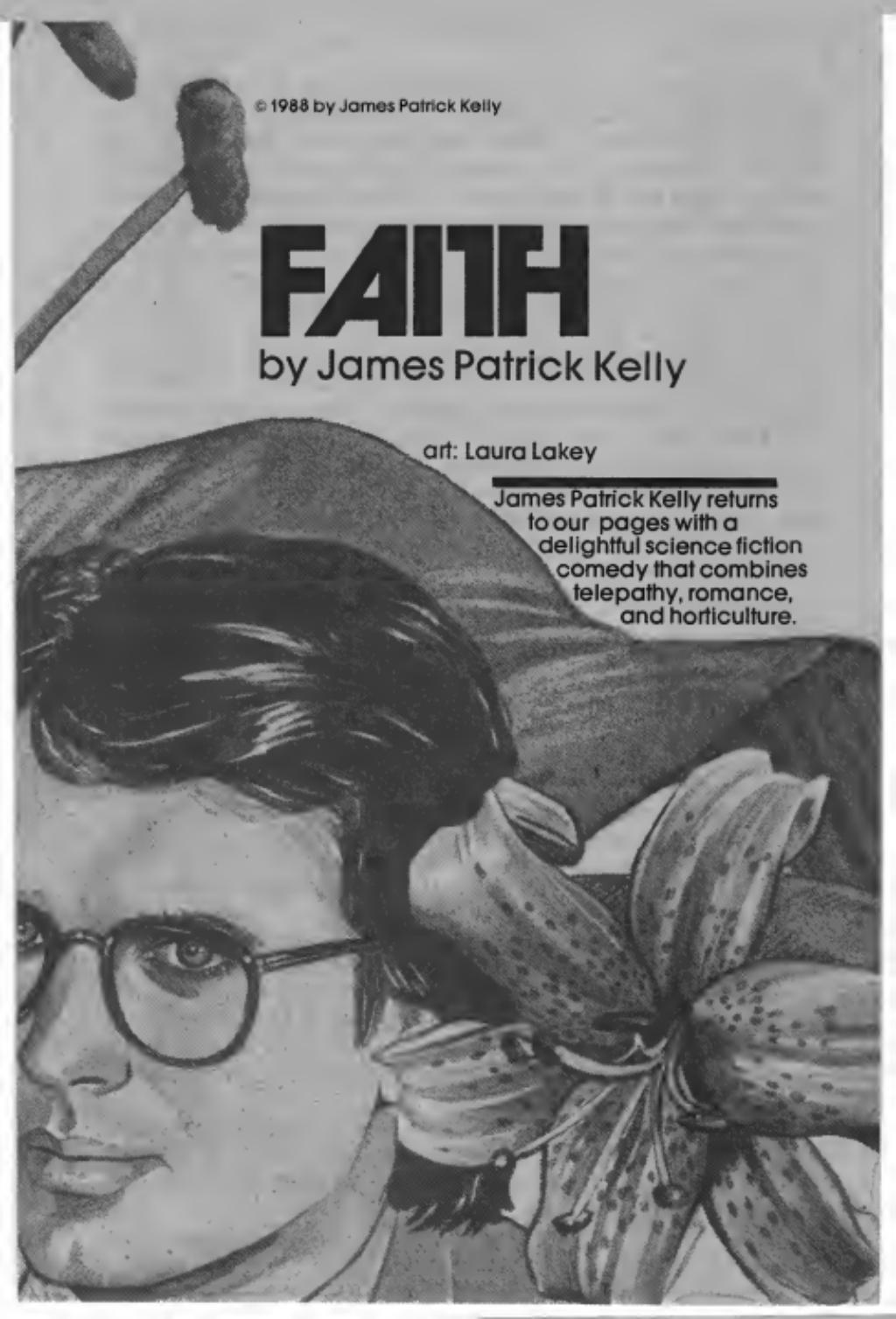
Listening to their cheery prattle, I felt so vile and corrupt. The world is sick beyond salvation; I've seen the projections. People aren't going to give up their cars and factories, their VCR's and styrofoam-packaged hamburgers. No one, not Merlin himself, can pull off that kind of miracle. But I said nothing. When I die and am called to account, I will not be found wanting. "Mordred did his *devoir*"—even Malory gave me that. I did everything but dig up Merlin, and then I did that, too. Because even if the world can't be saved, we have to try. We have to try.

I floored the accelerator.

For the sake of the children, we must act as if there is hope, though we know there is not. We are under an obligation to do our mortal best, and will not be freed from that obligation while we yet live. We will never be freed until that day when Heaven, like some vast and unimaginable mall, opens her legs to receive us all. ●

The author acknowledges his debt to the unpublished "Mordred" manuscript of the late Anna Quindslan.



A black and white artistic illustration. In the foreground, a woman with short, dark, wavy hair and round-rimmed glasses is looking directly at the viewer. She is wearing a patterned blouse with a large, prominent flower on the right side. In the background, there are stylized, flowing lines suggesting movement or energy. In the top left corner, there is a small, dark, textured shape that looks like a flower or a leaf.

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FAITH

by James Patrick Kelly

art: Laura Lakey

James Patrick Kelly returns to our pages with a delightful science fiction comedy that combines telepathy, romance, and horticulture.

Faith was about to cross Congress Street with an armload of overdue library books when she was run over by a divorce. There was no mistaking Chuck's cranberry BMW 325i idling at the light—except that Chuck was supposed to be in Hartford. The woman next to him had enough blonde hair to stuff a pillow. The light changed and the BMW accelerated through the intersection. Chuck was crazy if he thought he could get away with hit and run. The blonde looked suddenly ill; she folded down in her seat like a Barbie doll in a microwave. Without thinking, Faith hurled the top book in her stack. *Whump!* It was the first time she had ever appreciated Stephen King's wordiness; *The Tommy-knockers* bounced off the passenger door, denting it nicely. Chuck raced up Islington and out of her life. The book lay open next to the curb. Its pages fluttered in the wind, waving goodbye to fifteen years of marriage.

She had a long convalescence, during which Kleenex sales reached an all-time high. Chuck got the Beemer, the bimbo, and the freedom to be himself—poor bastard. She got the cape on Moffat Street and their teenager, Flip. By the time the divorce was final, she had lost her illusions about love, half of her friends, and twenty-three pounds.

She realized she was healing one day during her lunch hour. She was in a dressing room at Marshalls and had just wriggled into a size ten bikini.

"Maybe I should write a book," she said. In the next stall her best friend Betty grunted in frustration. "*The Divorce Diet*, what do you think?" Faith spread her fingers across her tummy. Her mother's bulge had receded until it no longer resembled the front bumper of a pickup. "You too can cry those extra pounds off." She turned and eyed her back-side in the mirror. "Stress: the key to tighter buns."

"Hell of a way to lose weight." Betty remained behind the curtain; she usually avoided mirrors like a vampire. "Liposuction is cheaper. Jesus, my thighs look like water balloons." She stuck her head out to admire Faith in the bikini. "You look great, Faith, you really do. When are you going to do something about it?"

The question nagged at Faith. What was she waiting for? Women were supposed to take what they wanted these days, not wait for men to offer it. At least, that was what the cigarette ads said. All her friends wanted to fix her up—Betty, in particular. Betty was hungry for vicarious thrills; she was married to Dave, who spent too much time on the road selling excavation equipment. As Faith rebuttoned her blouse, she wondered if she was ready now to go out.

But not with friends of friends. Not yet. Better to start with something she could abandon, if necessary, without making too much of a mess. She had been following the personals in *Portsmouth Magazine*; she thought she might run an ad.

She wrote it that afternoon at work, where it was easier to see herself objectively. After all, writing ad copy was her business. DWF. Faith hated that acronym. In her mind she could not help but hear DWF as dwarf. Who wanted to go out with Sneezy? Or Dopey? DWF 35. Now she needed some adjectives. Attractive professional. Okay, but there should be more. Attractive, slender, witty, secure professional. No, no, overkill. Delete slender. Now she needed something about her interests. What were her interests? Napping came immediately to mind. After working all day at the agency and then coming home to cook and clean and vacuum and do laundry and scrub toilets, she did not exactly have the energy to train for the decathlon or plow through *The New York Review of Books*. She made herself concentrate; there had to be something. My favorites: the flowers at Prescott Park, jazz, the beach in the winter, candlelit dinners anywhere. Yes, she liked that; it reeked of romance. Last came specifications for her ideal date. The problem was that she was not exactly sure what she wanted. Chuck's shabby betrayal had left her utterly confused about men. Seeking an intellectual and emotional equal. No, too pretentious. She was looking for some guy to split a pizza with, not applying to the University of New Hampshire. She scanned some other ads; what were her fellow dwarfs searching for? Compassionate, warm, honest, gentle, non-drinking life partners to share soft music, moonlit walks, and a lasting friendship. She was horrorstruck: these women all wanted to spend the night with Mr. Rogers! That decided her. She batted out a last line. Two deft keystrokes brought the brochure copy for Seacoast Cruises onto the computer screen and Faith was back in business. She pushed the ad out of her mind until just before quitting time, when she printed it without looking at it, wrote a check for a two week run, and mailed it.

DWF 35, attractive, witty, secure professional. My favorites: the flowers at Prescott Park, jazz, the beach in the winter, candlelit dinners anywhere. Looking for someone completely different. A little generic, perhaps, but it would do for starters.

When she got home, Flip, also known as The Creature From The Eighth Grade, was conducting SDI research in the back yard. He was directing photons at a nest of communist tent caterpillars with a magnifying glass he had borrowed from Faith's Oxford English Dictionary.

"Flip, I'm home. Please don't do that; it's gross."

"Ma, I'm zapping them before they go into launch mode."

"Forget it."

"Can I set them on fire with lighter fluid then?"

"No. Was there any mail today?"

"You got a check from Dad. No note, though."

"Flip, I've told you before. Don't open my mail."

"He's my father, you know."

"Yes, I know." She bit back an insult and confiscated the magnifying glass instead. "Look, I'm expecting some letters soon, okay? Addressed to me. Faith Pettingell. Open my mail again, sucker, and I'm taking a hammer to your TV."

"What's the matter, Ma, you got a boyfriend or something? About time you started going out."

Sometimes Flip had all the charm of a housefly. Actually, Faith loved her son dearly and would not have hesitated to rush into a burning building after him, although then they would probably both die of smoke inhalation. Betty, who substituted at the middle school, liked to say that there was really no such thing as a thirteen-year-old, that inside every eighth grader were a ten-year-old and a sixteen-year-old locked in mortal combat. Given enough time, the big kid would win and ask to borrow the car. Meanwhile, according to Betty, the best Faith could do was to silently chant the mother's mantra: "It's only a phase, it's only a phase."

It would have been easier if only Flip did not remind her so much of Chuck.

She got seven replies to her ad. Two she tossed immediately. One guy had handwriting like a lie detector chart; she was not even sure what language he had responded in. The other was only marginally literate. Faith considered herself a tolerant woman but she simply could not see herself with a man who could not get his subjects and verbs to agree.

She also heard from two lawyers, a plumbing contractor, and a computer programmer. Both of the lawyers played tennis; one had a sailboat. The programmer claimed to have eaten at every restaurant in Portsmouth. The plumber seemed to have had the most interesting life; he was a skydiver and had once lived in Thailand. Everyone but the programmer had been married before; the plumber was in the middle of divorce number two. They all seemed harmless enough, which left her at once pleased and vaguely disappointed. She felt like a little girl on Christmas morning just after she had opened the last present.

There was one other—strange—reply. It came from a man named Gardiner Allan. He did not offer a chatty autobiography or, indeed, any information about himself at all, other than a post office box number in Barrington. Instead he sent poetry.

Somewhere a stranger
is sleeping alone,
dreaming of gardens.
Roses breathe poems,
sweet sonnets of scent.
Leaves stir like green hearts.

The sun's caresses
inflame her bare skin.
But the cruel breeze sighs,
it isn't enough.
Where is the lover,
tender of flowers?
Then she spots someone
reaches to rouse him
drowsing in shadow,
and uproots herself.
Your dreams can't come true
Until you wake up.

Faith was intrigued. After all, she had advertised for someone completely different. But all this stuff about inflaming caresses and bare skin and lovers. Faith had steeled herself for many things; love was not one of them. She no longer believed in love. And what kind of name was Gardiner Allan anyway? It sounded like an alias—maybe he was an escaped pervert. He had not even given a phone number. Still, no one had ever written her a poem before.

She ended up sending a post card she had bought at the Museum of Fine Arts in Boston. On the front was a reproduction of Mary Cassatt's painting, *The Letter*. On the back she wrote:

"Dear Mr. Allan,

I enjoyed your poem. Is there more to you?"

She signed it "Faith" but gave no last name or return address. Let him get in touch with her through *Portsmouth Magazine*. If mysterious and artsy was his game, she could play, too.

She began conducting what she described to Betty as experiments in dating. The results were inconclusive. She saw the lawyer with the sailboat just the once, for lunch. He was five feet one. They had not said three words to each other when he started making announcements.

"I should tell you up front that I can't stand people who smoke."

Faith smiled politely. "That's okay, I don't."

"And I don't drink either."

Her smile shrank like cheap jeans. "Oh?"

"And I don't eat red meat or refined sugar."

"You do breathe?"

"Breathe? Breathe? Everyone breathes."

She liked the other lawyer better. He had a voice like an announcer on National Public Radio. He was also a great kisser; he could do things with his lower lip that were probably against the law in Alabama. He stopped calling, though, after she beat him in straight sets: 6-4, 6-2. The programmer wore plastic shoes. He took her to dinner at the Seventy-

Two but then ordered for both of them without asking her first. In a moment of weakness, she went out with him once more. This time they went to Luka's. They danced after dinner, but he never made eye contact while they were on the floor. He was too busy shopping the meat market around the bar. On the drive home he took off his shoes. His feet smelled like low tide.

The plumber was gorgeous; the only problem was that he knew it. He had a lion's mane of tawny hair and biceps the size of a meatloaf; he looked and acted at least fifteen years younger than he really was. Faith knew it was shallow of her but she could not help herself; the closer she stood to him, the tighter her underwear felt. He seemed to have been everywhere and tried everything. On one date they stood outside of Rosa's for almost an hour waiting to get in, but she hardly noticed because he was telling her how he had once had a mystical experience while on psilocybin at the Temple of Dawn in Bangkok. By the time they had reached the door, most of the women in line behind them were eavesdropping shamelessly. Faith glanced back at them in amazement; the competition was ogling her date. She kept fantasizing that Chuck would drive by and see them there.

But somehow their relationship never got out of the shallows. The more Faith did with him, the more she realized that, with this guy, what you saw was *all* you got. He could tell some wonderful stories, yet he seemed not to have learned anything from them. And his boyishness got old fast. Not only did he know the lyrics to *Teenager in Love*, but he sang them with conviction. He did not have much use for Flip; she suspected it was because her son made him feel his true age. What ended their affair, though, was his explanation of the Zen of seduction.

"Yeah, I learned it from this cartoonist I used to know in Singapore. The trick is not to want anything." He traced the line of her jaw as he spoke. "Empty the mind of all desire. If you absolutely don't care what happens, it drives them wild. They start throwing themselves at you."

"Is that what happened with us?" Faith propped herself up on her elbow.

"Maybe."

"And you don't want anything from me?"

He grinned then and kissed her. It was a perfectly good kiss, but it left a bad taste in her mouth afterward. She started using her answering machine to screen his calls, which she never returned. Eventually he got the message.

By summer, the experiments were completed. Faith had begun with low expectations and they had been met exactly. At least she had proved to herself that she could date without getting involved. Now she was

going to give men a rest. The weeds were choking her garden and the house needed cleaning and she had been neglecting her son.

She worried that Flip was lonely now that school was out. Usually he would bike over to swim team practice in the morning and then maybe visit his best friend Jerry, but Jerry's family went to their place on Lake Winnisquam in July. She had put Flip on a television diet of three hours a day, so he spent most afternoons either doing chores or fooling around with his computer or reading an endless stream of comics and trashy science fiction. She left work early a few days so that they could go to the beach but that was very hard for Faith. Flip kept staring at girls' breasts like they were cupcakes and he wanted to lick the frosting off. He's perfectly normal, she told herself as she ground her teeth. She had always assumed that Chuck would provide the necessary parental guidance about sex once Flip reached puberty. Chuck, however, was hardly a role model.

She decided it was better they should go someplace where people wore clothes. "Hey, Flip," she said one night, gallantly trying to compete with "Star Trek"; Captain Kirk was smirking at some space bimbo dressed in high heels and aluminum foil. "I just got the schedule for the Arts Festival at Prescott Park. Guy Van Duser and Billy Novick are on next Friday. How about we fry up some chicken and check them out? We could stay for the play."

"Boring." At the commercial he ran for the bathroom.

"Come on." She pulled the schedule from her purse. "I thought you'd like the play. *Little Shop of Horrors*."

"Saw the movie," Flip called. "Both movies."

"How about this? Mondays they're having a science fiction film festival at the library. *When Worlds Collide*." She read from the schedule. "*Invasion of the Body Snatchers*, *Plan 9 from Outer Space*."

"*Plan 9*? Jerry says that's the worst movie ever made. I heard it's awesome. I could see that. Yeah!"

Flip had been a science fiction fan since the third grade, a vice he had picked up from Chuck. Betty had been telling Faith for years not to worry. She claimed that science fiction was only another phase.

"Well, his father never grew out of it," Faith said.

"Live with it," said Betty. "It's better than girls, believe me. You can't catch a disease from science fiction."

"It's easy for you to say." Faith twirled the phone cord impatiently. "He's not dragging you to *Plan 9 from Outer Space*. Say, what are you doing Monday? Isn't Dave in Worcester?"

"Yes, but really, there's this Newhart rerun. . . ."

"Come on, I'll take you for ice cream afterward."

* * *

About a dozen people turned out on a hot Monday night to see the worst movie ever made. It was about stodgy aliens in silver tights who zoomed around in an Art Deco frisbee raising the dead. The only actor she recognized was Bela Lugosi, who looked as if he had just been raised from the dead. Betty wanted to go after the first reel but Flip was staying. While the librarian changed reels, Flip struck up a conversation with a friendly man who explained that the reason Bela looked so feeble was that he had died two days after shooting started. The director had then enlisted his wife's hairdresser as a stand-in. While her son listened, Faith idly sized the stranger up as a potential date. She had been doing that a lot lately; she was still trying to figure out her type. This one was tall, skinny, and thirtyish and he had very blue eyes. Handsome but not tastelessly so—too bad she did not trust men with glasses. Betty caught her looking and raised an inquiring eyebrow. Faith pursed her lips slyly and scooted around to face the screen. No way a Bela Lugosi fan could be her type.

After the movie, they window-shopped up Congress Street and down Market Square. When they got to Annabelle's, Faith was surprised to see the stranger already there, working on a sandwich and a bowl of soup. He grinned at her. "We've got to stop meeting like this."

Faith smiled back. "Small town, isn't it?" It was an absurdly trite comeback, but he did not seem to mind.

She was not quite sure why, but the smile stayed on her face. It felt comfortable there. She ordered a small crunchy chocolate cone while Flip and Betty settled at a table. They left her the chair facing the affable stranger.

"What did you get, Faith?" Betty nudged her. "*Faith?*"

The stranger made eye contact.

"Uh, fine." Faith's cheeks were warm. "Lovely." It was eerie, but she knew he would get up. She knew he was going to come over to talk to her. The surprise was that she wanted him to do it.

"Excuse me for eavesdropping," he said, "but is your name Faith?"

"Yes," she said.

"I think we may have corresponded." He extended his hand. "I'm Gardiner Allan."

"Uh, Gardiner Allan, right. The poet. You never wrote back."

"But I did. You never answered my second letter."

"I never got it."

He grimaced and made a crack about raccoons running the post office. She wanted to say something clever but *Plan 9* had turned her brain to cottage cheese. Meanwhile, Betty was practically twitching with curiosity.

"Why don't you pull up a chair, Gardiner?" said Flip.

He glanced at Faith. "I wouldn't want to intrude. . . ."

"Yes, please sit." She scooted her chair to make room. "It's no fun eating alone. I know. This is my friend, Betty Corriveau. My son, Flip."

Betty shook his hand; Flip waved. Faith could not think of anything to say so she licked her crunchy chocolate ice cream, which was already melting. Gardiner spooned up some soup. The silence stretched. Faith realized the man was probably thinking about all those damned adjectives: *witty, secure professional*. So much for truth in advertising.

"Well, this is a coincidence." Betty to the rescue. "So you're a poet, Gardiner?"

"It's a hobby, actually. Nobody earns a living from poetry—unless they work at Hallmark."

"And what do you do when you're not writing?"

"I breed plants."

"Are you with the university?" said Faith.

"No, I'm not affiliated with anyone. I guess you'd call me a free-lancer."

"That must be interesting." Betty sounded skeptical. "What kind of plants do you breed?"

"Oh, different kinds." He shrugged. "I've just developed a tetraploid *hemerocallis* I'm pretty fond of."

"*Hemerocallis*," Faith said. "Day lily, right?"

"That's it." He nodded approvingly. "Tets have twice the number of chromosomes, you know. Gives them vigor, clearer colors, better substance. But they don't breed true so you have to propagate them by division, which is slow, or tissue culture, which is expensive."

"What's that you're eating?" Flip had a low tolerance for adult chitchat. "Looks pretty nasty."

"Tomato dill soup and a vegetarian sandwich."

"Oh, are you a vegetarian?" Betty was grilling him as if she were doing an FBI background check.

"No, I just have to watch my diet." He waved his spoon vaguely. "So Flip, what did you think of the movie?"

They soon got to comparing favorites. Gardiner kept mentioning films that even Flip had never heard of.

"I just don't understand the attraction," Betty interrupted. "Sci-fi . . . it's just too weird for me."

"Weird, right," said Gardiner. "You know, weird comes from the Saxon: *wyrd*. Means fate or 'what is to come.' That's why people like science fiction, I think—kids especially. Their fate matters to them. They're still interested in what's coming. Other people bury their heads in the here and now, as if it were the only reality. Change spooks them and the future scares them silly. Since they don't understand it they refuse to

believe in it. But it's just plain wrong to pretend that 2001 is some impossible fairyland like Oz. Weird or not, it's coming."

Betty was momentarily speechless.

"I didn't know anyone took science fiction so seriously," Faith said.

"Not just science fiction. Fantasy, horror—I don't know. I'm strange, I guess. Different, anyway. Some people are afraid of that." He chuckled. "Hey, Flip, how about *Forbidden Planet*?"

"Is that the one with the robot?"

"Yeah. Did you know it's a remake of Shakespeare's *The Tempest*? Robbie is Ariel and Morbius is Prospero. Read *The Tempest*?"

"Shakespeare? You've got to be kidding me. They made us read *Romeo and Juliet* in English and I just about barfed."

"Flip, you've got to give Will a chance. Great fantasy writer. *The Tempest* has magicians and monsters—it's awesome. Or read some of his horror, *Macbeth* or *Hamlet*."

Faith liked the way this man's mind worked, but she was not about to let him know that. Not yet anyway. "I'm not sure I see *Macbeth* as a horror story."

"Oh, sure. There's even a curse on it; ask any actor. They're afraid to say the name; they call it 'that Scottish play.' People have died mysteriously. They say Shakespeare used real spells for the witches' dialogue."

Flip gazed at Gardiner as if he were the second coming of Rod Serling. Betty glanced at her watch—he had lost her back at *Forbidden Planet*. Faith wiped drips of crunchy chocolate ice cream from her fingers.

"I'm sorry." Gardiner looked sheepish. "I get carried away sometimes."

"No, no," said Faith. "It's fascinating. Really. Problem is that it's almost ten and I've got to be at work early tomorrow." She pushed her chair back.

"Would you mind if I called you some time?" The way he said it suggested that he did not expect her to say yes.

"Why not?" She patted his hand. "I'd like that." He had rough skin. "I'm in the book."

"See you, Gardiner," Flip said.

"Nice to meet you."

Faith could not sleep that night. Her bed seemed very big. Very lonely. The way Gardiner had guessed her name bothered her. How many other women named Faith had he accosted? She replayed their conversation in her mind. Something was wrong.

"Damn." She sat up abruptly. "Damn." How was he going to get her number when she had never told him her last name?

Flip was upstairs reading and Faith was making dinner. The phone rang. "Flip, can you get that?" She heard him bound across the upstairs

hall and held herself poised for a moment, but he did not call, so she went back to her chicken salad. She chopped some leftover white meat, a stalk of celery, a thin slice of Bermuda onion and a sliver of red pepper. She found the mayonnaise in the refrigerator but did not see the relish.

"Flip, where's the relish?" she shouted.

"I needed it," he shouted back.

"You needed it? A whole jar of relish? What for?"

"Ma, I'm on the phone if you don't mind."

She wiped her hands and picked up on the kitchen extension. "We interrupt this conversation for an important announcement. . . ."

"Ma!"

"Tell your friend you'll get back to him after we settle this relish crisis."

"Ma, I forgot to mention that I ran into—"

"Hello, Faith. This is Gardiner Allan."

"—Gardiner today at the library."

"Gardiner." She felt as if she had just swallowed a brick. "Hi."

"I was going to say something at dinner."

"Flip, hang up." *Click.* "Well, Gardiner, you sure have a knack for surprising people."

"I've had years of practice. I'm sorry, is this a bad time? I could try again later."

"That's okay." She caught the handset between her chin and shoulder as she checked the corn muffins in the oven. "Just puttering around the kitchen. So, how are you?"

He chattered for a while about how Park Seed was interested in exclusive rights to his new day lily for their Wayside Gardens catalog and then she babbled about the direct mail campaign she was doing for the Fox Run Mall. They complained about the muggy weather. They agreed that Flip was a wonderful kid. She made a comment about how lucky it was that Gardiner had run into him at the library.

"Maybe it wasn't luck," said Gardiner. "Maybe it was fate."

"Weird," she said. It was the first time she had made him laugh.

The preliminaries out of the way, he asked her to dinner. However, as soon she said yes, they seemed to run out of things to talk about. They agreed on Friday night at six and then he said he had to go and hung up.

"Flip, let's eat!"

As Faith listened to her son thud downstairs like a bowling ball, she wondered whether she had done a good thing in agreeing to see Gardiner Allan. Flip set the book he had been reading beside his plate.

It was *A Midsummer Night's Dream*.

Gardiner seemed edgy; he walked Faith out to his car like a man on

his way to an audit. The back seat of his Ford Escort wagon was covered with a plastic dropcloth. On it squatted an enormous plant with blue-green leaves the size of dinner plates.

"Gardiner, what a beautiful plant!"

"*Hosta sieboldiana*. A new cultivar."

Faith arched an eyebrow. "I've never been out with a perennial before."

"There's a perfectly good reason why I had to bring it, which I'd rather not go into just now." He turned the ignition key; the engine grumbled and caught.

"Does it have a name?" she asked.

"23HS."

"Pleased to meet you, Mr. S." She twisted around in her seat and touched one of the big leaves.

Gardiner said nothing.

"So where are we going for dinner?"

"We've got reservations at Anthony's for six thirty."

"Great. I love Anthony's." She teased him again. "But I didn't know they served hostas there."

Silence.

"Is something wrong?" she said. "I don't bite, you know. Or at least, not until after dessert."

"Everything's fine; it's my problem."

"I see." She considered. "You know what an oxymoron is, Gardiner? Because what you just said sounded like one."

He pulled off into an empty lot. "Faith, I like you, but there's something I've got to tell you."

She sagged against the passenger door. "Okay, I'm listening." She hated it when men started confessing things on the first date.

"I don't just blurt this out to anyone, you know. People get the wrong idea. But I like you."

"You said that already."

He grasped the steering wheel as if to anchor himself. "I talk to plants."

She waited. "That's all? You mean, you don't deal crack? You're not involved with a sixth-grader?"

"No listen, I really talk to plants. Hostas, day lilies, hibiscus—you name it. I don't understand myself exactly how I do it. But I'm not crazy, believe me. Just a little different. And I get results: I'm successful at what I do. There aren't that many independent plant breeders left in this country, you know. Most of them work for universities or corporations or else they specialize in just one species. I've registered more than twenty different cultivars in the past ten years. Anyway, sometimes I wait to tell people—women—about this. I wait until they get to know me better. But when they find out, I end up getting hurt."

"Gardiner, I . . ."

"It's all right if you want to go home. I understand; it's happened before. Sometimes I don't even know why I bother. Look, I don't . . . I certainly don't expect you to talk to plants. I'd be pretty surprised if you did. You can think whatever you want—but just don't humor me. Okay? Because first they always say 'oh, isn't that cute, he talks to plants' and then it's 'poor guy, maybe he's been alone too long,' and the next step is 'Gardiner, have you ever thought about getting counseling?' I don't need counseling! I just need someone to trust me for a change."

Faith hesitated, then reached over and gently squeezed his arm. The muscle was knotted beneath his sleeve, as if he were ready to hit someone. But she knew, somehow, that she was not the one he was angry at. It was the same spooky way she had known at Annabelle's that he was going to introduce himself. Maybe it was body language or the crack in his voice, but she had a good feeling about this man, despite his tirade. She could not say why she trusted him, but she did. "I'm sorry I teased you." She let her hand drop and checked her watch. "Did you say our reservations are for six-thirty? Come on, let's go before they give some tourist our table."

He nodded and pulled back onto Islington Street. "I thought about saying that all day."

"I'll bet."

"That wasn't the way I had rehearsed it."

She sensed he was cooling off, so she grinned. "It's all part of the agenda for a first date, you know. You need to figure out whether you're with a human being or a chimpanzee, so you make up these tests—we all do."

"A test? Maybe so." He grinned back. "So what's your test?"

"Oh, I stick to the basics," she said. "Does he show up? Is he wearing shoes? Can he speak Lithuanian?" Once she got him chuckling, she met and held his gaze. "But as long as we're being disgustingly honest . . . I need to tell you something too. I'm glad you like me, Gardiner. But when a man keeps saying things like that, I hear something else."

"Okay." He sighed. "I understand."

By the time they reached Anthony's, the crisis had passed. With the help of a bottle of Valpolicella, they laughed their way through the antipasto. For the main course Faith ordered her favorite, the cunningly spiced fettuccine carbonara. She warned Gardiner that garlic was another test. He had eggplant something. She finally tried asking him about himself over the cappuccino.

"I grew up in Hollis," he said. "Mom taught math at Nashua High and Dad owned an apple orchard. I went to UNH for a couple of years; I was going to major in plant science and help run the orchard. But it was the

sixties, you know. I took a detour and never got back to the highway. I inherited some money when Dad died so I bought the land in Barrington. I wanted to raise pot but my girlfriend at the time was paranoid, thank goodness. So I tried my hand at growing legal stuff." He lifted his cup. "The rest is horticultural history."

"You're lucky to be doing something you're good at," Faith said. "Then again, you do have the name for it."

"Gardiner was my grandmother's maiden name. Hated it when I was a kid. I thought it a bad joke my parents played on me. Now I see it more as an omen. Turns out lots of people have names that fit. The guy who took my appendix out was Dr. Cutts. The archbishop of Manila, Cardinal Sin. Grace Kelly. We once had a governor named Natt Head."

"George Bush." Faith giggled. "Dan Quayle."

"There you go."

After dinner, they strolled through town. She told him about growing up in Philadelphia. She hated discussing her marriage because of the whine that always crept into her voice, so she told Flip stories instead. Flip and the lost ant colony. Flip meets Governor Sununu. Flip and the barbecued cat food. She talked about the agency and how she was going to ask for a promotion.

"Does *your* work make you happy?" he asked.

"I don't know what happy means anymore. I thought I was happy with Chuck and he was cheating on me. Isn't happy just our capacity for self-deception?"

"That's a dumb question." He took her hand. "As long as we're being brutally honest."

"Oh." She thought about being offended. She thought about letting go of his hand. She decided not to.

They wandered through the park at twilight. Gardiner went straight for the All-America Selection trial garden. "Front row seats for the plant play-offs. Check out the celosias." He knelt to touch some spiky flowers that looked like burning feathers. "You're gorgeous," he said.

She folded her arms. "Well, thanks."

He glanced up at her, his face bright with pleasure. "Yeah, you too," he said.

Faith had long since decided that men were born compliment-impaired. "They smell nice, anyway."

"No, that's nicotiana. The white trumpets. Another old-timer they've overimproved. They bred for more flowers and gave up most of the fragrance. In your grandmother's day you would've been able to smell that bed in Maine." He straightened up. "Ever hear of Luther Burbank?"

"No." She took his hand again.

"He introduced over eight hundred varieties of new plants way before

anyone understood genetics. He had an instinct. They say he could walk down a row of seedlings, deciding what to thin at a glance. He knew just which ones would bear the fruit he wanted. How could he do that?"

She shook her head.

"He developed a spineless cactus. Afterward he said, 'I often talked to the plants to create a vibration of love. "You have nothing to fear," I would tell them. "You don't need your defensive thorns. I will protect you." That's a direct quote. *'You have nothing to fear.'* Try publishing that in a scientific journal."

"This has something to do with your hosta."

"Here's another celosia," said Gardiner. "Cockscomb."

"Looks like a brain made of red velvet," she said, "and don't change the subject."

He stopped and faced her. "It wasn't only the words that Burbank said. It was his vibration." He looked uncomfortable. "You see, 23HS is forming gametophytes, getting ready for sexual reproduction. I'm telling it that I love it and making a . . . friendly suggestion about the offspring. A matter of a few chromosomes. It doesn't take all that much focus; it's like driving the interstate."

"Telling it? Right now?"

He nodded. His eyes seemed to get bluer and for a moment she felt that she could see inside of him. He was afraid.

So was she. "Are you saying you're using telepathy? On a hosta?"

"Telepathy? I didn't say anything about telepathy. I said *suggestion*, Faith." He shivered in the gloom. "I hate explaining this. It always comes out wrong. So why am I telling you?"

"I don't know." She squeezed his hand. "Because you want someone to trust you?"

He stared at the lights across the river. "Would you consider coming out to the farm? I could show you there."

"I might." She surprised herself. "I just might. Promise not to sacrifice me to the corn goddess?"

"He's a mad scientist."

"He's not a scientist. He never got his degree."

It was late on a Saturday night. Betty and Faith were at the kitchen table, drinking Carlo Rossi Rhine out of coffee cups. Flip was with his father and Betty's husband Dave was in Toledo. There were only three brownies left in the pan.

"He talks dirty to plants."

"You promised to withhold judgment until I finished the story." Faith wondered if she should have said anything at all to her. "Don't you ever talk to your plants?"

"No."

"Well, I do. Millions of people do. It's perfectly acceptable behavior." Faith was keeping Gardiner's vibrations a secret for now, which was hard because they were what worried her most.

"All right, I'm withholding. He's got wonderful compost. I'm totally impartial."

"So I went up to his place in Barrington. He owns sixty acres off Route 9. The farmhouse was built in 1834; there's an attached barn, a big greenhouse. And gardens, amazing gardens."

"Is the house nice?"

"He doesn't live in the house. He could, but it's too big for him. He has a trailer, an old fashioned aluminum Airstream. Sort of retro. When he was a kid he thought they looked like space ships and he always wanted to live in one when he grew up."

"When he grew up," Betty repeated, writing on an imaginary notepad.

"I met his staff; he has an older couple, John and Sue, full time and three kids from UNH for the summer. Everyone was so friendly and enthusiastic—reminded me of summer camp. They whistle a lot. And it's contagious. As we walked the grounds, I felt glad just to be there. Like I wanted to stretch out on the warm grass and make the afternoon last the rest of my life."

Betty refilled Faith's empty cup. "So when he talks to plants, what does he say?"

"He's a shameless flatterer. 'How's my jewel today? You're smothered with buds. And your lines are so graceful. What, are you reblooming already?' He uses Q-tips to cross-pollinate. 'You'll like this one,' he says, 'he blooms for weeks.' And he stuffs things in his mouth like a toddler. Bits of leaf, blades of grass, thinnings—he ate a flower. Well, so did I: rose petals in the salad. But while we were in the annual garden, he ate a nasturtium. He claims it helps him stay connected. He has this theory that plants like to be consumed. They want us to make better use of them. But the worst was when he ate a Japanese beetle."

"Ugh. Kind of scratchy going down."

"He said he didn't do that very often but that it reassured the plants and discouraged beetles. I think he was showing off."

"Men'll do that—don't ask me why. In college, a rugby player once swallowed a guppy for me." Betty sounded wistful. "His name was Herman."

"Oh, and he named a flower after me."

"What!"

Faith grinned. "He's been working on a new day lily and apparently it's a big deal. He just sold propagation rights to this seed company and they've been pressing him to name it because their catalog is going to

the printer. So now it's going to be called 'Faith.' In the morning it's a dusty salmon but as the blossom catches the sun, it gets brighter and pinker. 'Improves with age,' he says. And fragrant too. I mean, it was so beautiful, I wanted to cry."

"He named a flower after you on the second date! Forchrissakes, did you go to bed with him?" She said it so that Faith could take it as a joke if she wanted.

Faith's grin stretched to a smile. "After dinner, everyone else went home and we talked for a long time on the porch swing at the house and then he said, 'I'm going to kiss you now unless you stop me.' "

"I take it you didn't."

"Are you kidding? I wanted to applaud." She dissolved into laughter and then pounded her wrists against her forehead. "Betty, I don't want to do this. I can't be falling already. It's too soon . . . I'm still rebounding from Chuck. Aren't I supposed to wait two years or something?"

"Next you'll be drawing up a flow chart! You're allowed to feel whatever you feel."

"Whose side are you on, anyway?"

"Yours."

"I didn't think you liked him after the way you acted at Annabelle's. You couldn't wait to go."

"The only reason I acted any way at all is because I was attracted to him and wished I could do something about it." She snatched up the last brownie and squinted at Faith. "Did I just say what I thought I heard myself say?"

"You don't think he's too strange?"

"Sure he's too strange." She shrugged. "Everybody is. It's a wonder we can stand one another at all, much less fall in love. I think you already know what you want to do, Faith. But if you're asking me, I say good for you."

Faith was at a loss. She had expected Betty to try and talk her out of seeing Gardiner again. Betty's approval only made her feelings for him more credible. And more scary. She wished she could have told Betty about the vibrations—or whatever the hell they were—but that would have been too reckless a violation of Gardiner's trust. Bad enough that she had blabbered as much as she had. So she was left with what seemed to her an intractable dilemma: her new boyfriend was telepathic. How else could he have recognized Faith at Annabelle's? Or found Flip at the library? Or waited until precisely the right moment to kiss her? It was not only plants that he connected to; Faith believed Gardiner had read her mind. She doubted she could be with a man who would always know what she was thinking. How would she be able to tell if she were being manipulated into doing things that she did not really want? Maybe he

did not care at all, maybe he was just using his power to seduce her. When they filmed her life, they would have to call it *Passion Slave of the Mutant*. God help me, she thought, deep into yet another sleepless night, I'm sinking to Flip's level. I'm starting to see my life in terms of "B" monster movies.

Flip and Jerry were in the back seat practicing burps. Faith had never understood why rude noises should strike such profound harmonies in the souls of thirteen-year-old boys. Soon they would move on to farts. She pulled into Betty's driveway and parked next to Dave's Taurus. Something was wrong. Betty never went out when her husband was home.

"You okay?" said Faith.

"No." The screen door slammed. "Where's Gardiner?"

"He had to work late; we're meeting him at the park. Look, are you sure you want to come? I'll call him and cancel. We could go to my place and talk."

"I don't want to talk." She marched from her house as if she never intended to return. "I've been talking ever since he came home. I'm sick of hearing myself."

"Problems?"

"No problem. All I have to do is accept the fact that I have a drive-through marriage. Just take me someplace where people are having fun, okay? The more the merrier."

A dense groundcover of blankets and lawn chairs had already spread around the outdoor stage at Prescott Park Arts Festival by the time they arrived. It had been a wet summer and many of the performances had been rained out. The penultimate show of the season had drawn a big crowd on a warm Friday night. A harpist and a science fiction writer were the opening acts for *Little Shop of Horrors*.

They spread the blanket on the lawn between the whale sculpture and the stage. Flip and Jerry wandered off to snack, ignoring Faith's protest that the cooler was full of fried chicken and fruit salad. As the crowd filled in around them, Betty steadfastly resisted Faith's efforts to draw her out. She was about as much company as a land mine. "I'm going to stretch my legs," she said finally. "I'll be back."

Faith was sympathetic; however she could not help but resent Betty's timing. Faith did not need to be worrying about her friend when she had to decide what to say to Gardiner. One reason she had brought Jerry and Flip along was to protect herself from a serious conversation if she lost her nerve. Now she was alone.

"What's with Betty?" He snuck up behind her, stooped, and nuzzled the back of her neck. "I saw her on the way in."

"I don't know exactly." She held out her hands to be helped up. "Funny, I was just thinking of you."

He took her weight effortlessly. "I can't stop thinking of you."

She almost came into his arms but then pushed away. "Let's take a walk." He made her feel too good.

He veered toward the garden but she maneuvered him around it as she explained that Betty was having trouble with Dave, but was not talking about it. They passed over the bridge and past the parking lots on Pierce Island, strolling in silence while Faith worked up her courage. "What am I thinking right now?" she said. "Take a guess."

He put fingers to temples and affected an air of deep concentration. "You're thinking . . . let's see, you're thinking that if we don't turn around soon, we'll be late for the harpist. No, no, wait—that's what *I'm* thinking."

"Gardiner, what kind of vibrations do you get from me?"

"Good, good, *good*, good vibrations," he sang in a surfer falsetto.

"Be serious. I'm asking if you can read my mind."

He made a rude noise that Flip would have loved. "Everyone asks that, sooner or later. And I always tell the truth. Which is, I don't know."

"How could you not know something like that?"

"I can't tell what you're thinking, what your cat thinks, or what a rose thinks. If anything. Sometimes I sense emotions. Anger, fear, desire; the strong ones. But so what? We all give unconscious cues to one another and it's not that hard to understand them, if you pay attention. Lots of people don't. They're so locked up inside themselves that they never see anyone else. But just because I look people in the eye doesn't mean I know what's in their hearts. I'm a sender, not a receiver."

She slipped an arm around his waist. "What does that mean exactly?"

"I have no secrets because I broadcast what I feel. The stronger the emotion, the broader the cast. If I'm happy, I'm literally the life of the party. When I'm sad, people want to cry. It's a curse, really—which is why I'd rather be with my plants. It's all so much simpler with begonias. I mean I can't hide it if I don't like someone. And when I love someone. . . ."

"You don't love me."

"No? Think about it, Faith. I'm the one that's naked. When you're close and I brush your face like this. Can't you tell? When I whisper your name? Faith."

Their lips touched.

After a while, he pulled back. "Do you know what a feedback loop is?"

"*Gardiner, we're kissing!*"

"When sound from the speaker gets picked up by the microphone, the system howls. It feeds on itself, increasing with every cycle to maximum

output." He sifted her hair through his fingers. "Maybe that's what's happening to us. My love is reflected by you back to me, which makes me think you love me, which makes me love you more, and on and on. It's happened before."

"Doesn't leave much room for my feelings, does it?"

"I wish I knew what they were, Faith. Can you tell me?"

"No. I don't know. Now I'm really confused."

"So maybe it *is* feedback. What you need to do is get far away from me so you can decide what you feel without my interference."

"We'd better go back." She poked him in the ribs. "You sure know how to ruin a kiss."

They missed the first few minutes of the harpist, who was very good. The boys were restless so during the break before the science fiction writer read, she sent them over to spit off the pier. Gardiner was restless too; he went in a different direction. Faith was afraid she had hurt him.

She knew that was wrong. She was afraid of hurting him. Hurting herself. She was too damn careful; if this kept up she would never be with anyone again. She needed to take some chances. She spotted Gardiner over by the vertical planting of impatiens. He was cruising the wall of bloom like it was the salad bar at Wendy's.

"Faith, he's here," Betty hissed.

As Faith watched, Gardiner picked a flower and then surreptitiously popped it into his mouth. Nobody saw but her. She grinned and shook her head. The man needed someone to watch out for him or he was going to get in trouble someday. And she wanted him—no question about that! He had brought her back to life; now she was ready to blossom. Why should she care how he had done it?

"And he's with someone new! I can't believe it."

Faith wondered if she were far enough away to be out of Gardiner's feedback loop. Because, from this distance, he looked very much like someone she could love. "What are you mumbling about?" Even if his kissing did need work.

"Chuck."

"Chuck?" Faith was dreaming now. "Chuck who?" ●

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TOADS

Sure, I called her *stupid cow*
and *witch*,
but only under my breath.
And I took an extra long lunch
last Friday,
and quit right at five
every day this week,
slapping my desk top down
with a noise
like the snap of gum.
She could've fired me right then.
Or docked my check.
Or put a pink slip
in my envelope
with that happy face
she draws on all her notes.
But not her.

Witch!

This morning
at the coffee shop,
when I went to order
a Danish and a decaf to go,
instead of words,
this great gray toad
the size of a bran muffin
dropped out between my lips
onto the Formica.

It looked up at me,
its dark eyes sorrowful,
its back marked
with Revlon's Lady Love
the shape of my kiss.

Tell me,
do you think
I should apologize?
Do you think I should let
the shop steward know?

—Jane Yolen



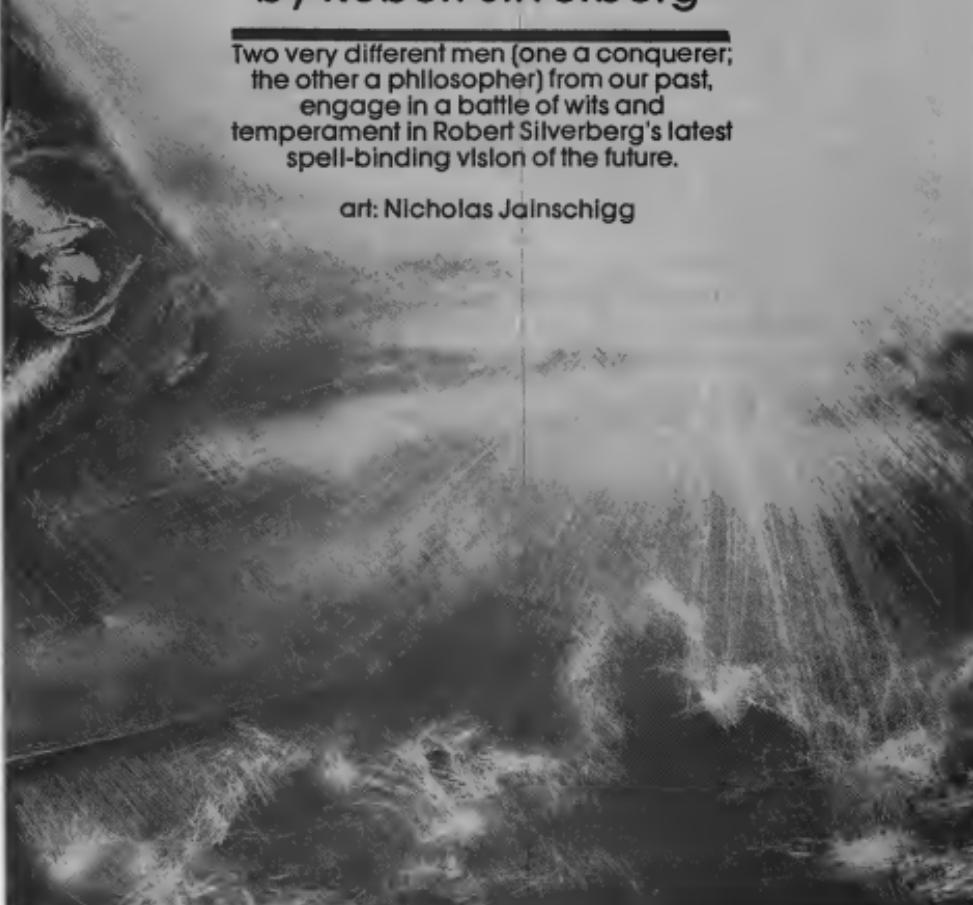
ENTER A SOLDIER. LATER: ENTER ANOTHER

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by Robert Silverberg

Two very different men (one a conqueror; the other a philosopher) from our past, engage in a battle of wits and temperament in Robert Silverberg's latest spell-binding vision of the future.

art: Nicholas Jainschigg



It might be heaven. Certainly it wasn't Spain and he doubted it could be Peru. He seemed to be floating, suspended midway between nothing and nothing. There was a shimmering golden sky far above him and a misty, turbulent sea of white clouds boiling far below. When he looked down he saw his legs and his feet dangling like child's toys above an unfathomable abyss, and the sight of it made him want to puke, but there was nothing in him for the puking. He was hollow. He was made of air. Even the old ache in his knee was gone, and so was the everlasting dull burning in the fleshy part of his arm where the Indian's little arrow had taken him, long ago on the shore of that island of pearls, up by Panama.

It was as if he had been born again, sixty years old but freed of all the harm that his body had experienced and all its myriad accumulated injuries: freed, one might almost say, of his body itself.

"Gonzalo?" he called. "Hernando?"

Blurred dreamy echoes answered him. And then silence.

"Mother of God, am I dead?"

No. No. He had never been able to imagine death. An end to all striving? A place where nothing moved? A great emptiness, a pit without a bottom? Was this place the place of death, then? He had no way of knowing. He needed to ask the holy fathers about this.

"Boy, where are my priests? Boy?"

He looked about for his page. But all he saw was blinding whorls of light coiling off to infinity on all sides. The sight was beautiful but troublesome. It was hard for him to deny that he had died, seeing himself afloat like this in a realm of air and light. Died and gone to heaven. This is heaven, yes, surely, surely. What else could it be?

So it was true, that if you took the Mass and took the Christ faithfully into yourself and served Him well you would be saved from your sins, you would be forgiven, you would be cleansed. He had wondered about that. But he wasn't ready yet to be dead, all the same. The thought of it was sickening and infuriating. There was so much yet to be done. And he had no memory even of being ill. He searched his body for wounds. No, no wounds. Not anywhere. Strange. Again he looked around. He was alone here. No one to be seen, not his page, nor his brother, nor De Soto, nor the priests, nor anyone. "Fray Marcos! Fray Vicente! Can't you hear me? Damn you, where are you? Mother of God! Holy Mother, blessed among women! Damn you, Fray Vicente, tell me—tell me—"

His voice sounded all wrong: too thick, too deep, a stranger's voice. The words fought with his tongue and came from his lips malformed and lame, not the good crisp Spanish of Estremadura but something shameful and odd. What he heard was like the spluttering foppishness of Madrid or even the furry babble that they spoke in Barcelona; why, he might

almost be a Portuguese, so coarse and clownish was his way of shaping his speech.

He said carefully and slowly, "I am the Governor and Captain-General of New Castile."

That came out no better, a laughable noise.

"Adelantado—Alguacil Mayor—Marques de la Conquista—"

The strangeness of his new way of speech made insults of his own titles. It was like being tongue-tied. He felt streams of hot sweat breaking out on his skin from the effort of trying to frame his words properly; but when he put his hand to his forehead to brush the sweat away before it could run into his eyes he seemed dry to the touch, and he was not entirely sure he could feel himself at all.

He took a deep breath. "I am Francisco Pizarro!" he roared, letting the name burst desperately from him like water breaching a rotten dam.

The echo came back, deep, rumbling, mocking. *Frantheethco. Pee-tharro.*

That too. Even his own name, idiotically garbled.

"O great God!" he cried. "Saints and angels!"

More garbled noises. Nothing would come out as it should. He had never known the arts of reading or writing; now it seemed that true speech itself was being taken from him. He began to wonder whether he had been right about this being heaven, supernal radiance or no. There was a curse on his tongue; a demon, perhaps, held it pinched in his claws. Was this hell, then? A very beautiful place, but hell nevertheless?

He shrugged. Heaven or hell, it made no difference. He was beginning to grow more calm, beginning to accept and take stock. He knew—had learned, long ago—that there was nothing to gain from raging against that which could not be helped, even less from panic in the face of the unknown. He was here, that was all there was to it—wherever *here* was—and he must find a place for himself, and not this place, floating here between nothing and nothing. He had been in hells before, small hells, hells on Earth. That barren isle called Gallo, where the sun cooked you in your own skin and there was nothing to eat but crabs that had the taste of dog-dung. And that dismal swamp at the mouth of the Rio Biru, where the rain fell in rivers and the trees reached down to cut you like swords. And the mountains he had crossed with his army, where the snow was so cold that it burned, and the air went into your throat like a dagger at every breath. He had come forth from those, and they had been worse than this. Here there was no pain and no danger; here there was only soothing light and a strange absence of all discomfort. He began to move forward. He was walking on air. Look, look, he thought, I am walking on air! Then he said it out loud. "I am walking on air," he announced, and laughed at the way the words emerged from him. "San-

tiago! Walking on air! But why not? I am Pizarro!" He shouted it with all his might, "Pizarro! Pizarro!" and waited for it to come back to him.

Peetharro. Peetharro.

He laughed. He kept on walking.

Tanner sat hunched forward in the vast sparkling sphere that was the ninth-floor imaging lab, watching the little figure at the distant center of the holotank strut and preen. Lew Richardson, crouching beside him with both hands thrust into the data gloves so that he could feed instructions to the permutation network, seemed almost not to be breathing—seemed to be just one more part of the network, in fact.

But that was Richardson's way, Tanner thought: total absorption in the task at hand. Tanner envied him that. They were very different sorts of men. Richardson lived for his programming and nothing but his programming. It was his grand passion. Tanner had never quite been able to understand people who were driven by grand passions. Richardson was like some throwback to an earlier age, an age when things had really mattered, an age when you were able to have some faith in the significance of your own endeavors.

"How do you like the armor?" Richardson asked. "The armor's very fine, I think. We got it from old engravings. It has real flair."

"Just the thing for tropical climates," said Tanner. "A nice tin suit with matching helmet."

He coughed and shifted about irritably in his seat. The demonstration had been going on for half an hour without anything that seemed to be of any importance happening—just the minuscule image of the bearded man in Spanish armor tramping back and forth across the glowing field—and he was beginning to get impatient.

Richardson didn't seem to notice the harshness in Tanner's voice or the restlessness of his movements. He went on making small adjustments. He was a small man himself, neat and precise in dress and appearance, with faded blond hair and pale blue eyes and a thin, straight mouth. Tanner felt huge and shambling beside him. In theory Tanner had authority over Richardson's research projects, but in fact he always had simply permitted Richardson to do as he pleased. This time, though, it might be necessary finally to rein him in a little.

This was the twelfth or thirteenth demonstration that Richardson had subjected him to since he had begun fooling around with this historical-simulation business. The others all had been disasters of one kind or another, and Tanner expected that this one would finish the same way. And basically Tanner was growing uneasy about the project that he once had given his stamp of approval to, so long ago. It was getting harder and harder to go on believing that all this work served any useful purpose.

Why had it been allowed to absorb so much of Richardson's group's time and so much of the lab's research budget for so many months? What possible value was it going to have for anybody? What possible use?

It's just a game, Tanner thought. One more desperate meaningless technological stunt, one more pointless pirouette in a meaningless ballet. The expenditure of vast resources on a display of ingenuity for ingenuity's sake and nothing else: now *there's* decadence for you.

The tiny image in the holotank suddenly began to lose color and definition.

"Uh-oh," Tanner said. "There it goes. Like all the others."

But Richardson shook his head. "This time it's different, Harry."

"You think?"

"We aren't losing him. He's simply moving around in there of his own volition, getting beyond our tracking parameters. Which means that we've achieved the high level of autonomy that we were shooting for."

"Volition, Lew? Autonomy?"

"You know that those are our goals."

"Yes, I know what our goals are supposed to be," said Tanner, with some annoyance. "I'm simply not convinced that a loss of focus is a proof that you've got volition."

"Here," Richardson said. "I'll cut in the stochastic tracking program. He moves freely, we freely follow him." Into the computer ear in his lapel he said, "Give me a gain boost, will you?" He made a quick flicking gesture with his left middle finger to indicate the quantitative level.

The little figure in ornate armor and pointed boots grew sharp again. Tanner could see fine details on the armor, the plumed helmet, the tapering shoulder-pieces, the joints at the elbows, the intricate pommel of his sword. He was marching from left to right in a steady hip-rolling way, like a man who was climbing the tallest mountain in the world and didn't mean to break his stride until he was across the summit. The fact that he was walking in what appeared to be mid-air seemed not to trouble him at all.

"There he is," Richardson said grandly. "We've got him back, all right? The conqueror of Peru, before your very eyes, in the flesh. So to speak."

Tanner nodded. Pizarro, yes, before his very eyes. And he had to admit that what he saw was impressive and even, somehow, moving. Something about the dogged way with which that small armored figure was moving across the gleaming pearly field of the holotank aroused a kind of sympathy in him. That little man was entirely imaginary, but *he* didn't seem to know that, or if he did he wasn't letting it stop him for a moment: he went plugging on, and on and on, as if he intended actually to get somewhere. Watching that, Tanner was oddly captivated by it, and found

himself surprised suddenly to discover that his interest in the entire project was beginning to rekindle.

"Can you make him any bigger?" he asked. "I want to see his face."

"I can make him big as life," Richardson said. "Bigger. Any size you like. Here."

He flicked a finger and the hologram of Pizarro expanded instantaneously to a height of about two meters. The Spaniard halted in mid-stride as though he might actually be aware of the imaging change.

That can't be possible, Tanner thought. That isn't a living consciousness out there. Or is it?

Pizarro stood poised easily in mid-air, glowering, shading his eyes as if staring into a dazzling glow. There were brilliant streaks of color in the air all around him, like an aurora. He was a tall, lean man in late middle age with a grizzled beard and a hard, angular face. His lips were thin, his nose was sharp, his eyes were cold, shrewd, keen. It seemed to Tanner that those eyes had come to rest on him, and he felt a chill.

My God, Tanner thought, he's *real*.

It had been a French program to begin with, something developed at the Centre Mundial de la Computation in Lyons about the year 2119. The French had some truly splendid minds working in software in those days. They worked up astounding programs, and then nobody did anything with them. That was *their* version of Century Twenty-Two Malaise.

The French programmers' idea was to use holograms of actual historical personages to dress up the *son et lumiere* tourist events at the great monuments of their national history. Not just preprogrammed robot mockups of the old Disneyland kind, which would stand around in front of Notre Dame or the Arc de Triomphe or the Eiffel Tower and deliver canned spiels, but apparent reincarnations of the genuine great ones, who could freely walk and talk and answer questions and make little quips. Imagine Louis XIV demonstrating the fountains of Versailles, they said, or Picasso leading a tour of Paris museums, or Sartre sitting in his Left Bank cafe exchanging existential *bons mots* with passersby! Napoleon! Joan of Arc! Alexandre Dumas! Perhaps the simulations could do even more than that: perhaps they could be designed so well that they would be able to extend and embellish the achievements of their original lifetimes with new accomplishments, a fresh spate of paintings and novels and works of philosophy and great architectural visions by vanished masters.

The concept was simple enough in essence. Write an intelligencing program that could absorb data, digest it, correlate it, and generate further programs based on what you had given it. No real difficulty there. Then start feeding your program with the collected written works—if

any—of the person to be simulated: that would provide not only a general sense of his ideas and positions but also of his underlying pattern of approach to situations, his style of thinking—for *le style*, after all, *est l'homme même*. If no collected works happened to be available, why, find works *about* the subject by his contemporaries, and use those. Next, toss in the totality of the historical record of the subject's deeds, including all significant subsequent scholarly analyses, making appropriate allowances for conflicts in interpretation—indeed, taking advantage of such conflicts to generate a richer portrait, full of the ambiguities and contradictions that are the inescapable hallmarks of any human being. Now build in substrata of general cultural data of the proper period so that the subject has a loam of references and vocabulary out of which to create thoughts that are appropriate to his place in time and space. Stir. *Et voilà!* Apply a little sophisticated imaging technology and you had a simulation capable of thinking and conversing and behaving as though it is the actual self after which it was patterned.

Of course, this would require a significant chunk of computer power. But that was no problem, in a world where 150-gigaflops networks were standard laboratory items and ten-year-olds carried pencil-sized computers with capacities far beyond the ponderous mainframes of their great-great-grandparents' day. No, there was no theoretical reason why the French project could not have succeeded. Once the Lyons programmers had worked out the basic intelligencing scheme that was needed to write the rest of the programs, it all should have followed smoothly enough.

Two things went wrong: one rooted in an excess of ambition that may have been a product of the peculiarly French personalities of the original programmers, and the other having to do with an abhorrence of failure typical of the major nations of the mid-twenty-second century, of which France was one.

The first was a fatal change of direction that the project underwent in its early phases. The King of Spain was coming to Paris on a visit of state; and the programmers decided that in his honor they would synthesize Don Quixote for him as their initial project. Though the intelligencing program had been designed to simulate only individuals who had actually existed, there seemed no inherent reason why a fictional character as well documented as Don Quixote could not be produced instead. There was Cervantes' lengthy novel; there was ample background data available on the milieu in which Don Quixote supposedly had lived; there was a vast library of critical analysis of the book and of the Don's distinctive and flamboyant personality. Why should bringing Don Quixote to life out of a computer be any different from simulating Louis XIV, say, or Moliere, or Cardinal Richelieu? True, they had all

existed once, and the knight of La Mancha was a mere figment; but had Cervantes not provided far more detail about Don Quixote's mind and soul than was known of Richelieu, or Moliere, or Louis XIV?

Indeed he had. The Don—like Oedipus, like Odysseus, like Othello, like David Copperfield—had come to have a reality far more profound and tangible than that of most people who had indeed actually lived. Such characters as those had transcended their fictional origins. But not so far as the computer was concerned. It was able to produce a convincing fabrication of Don Quixote, all right—a gaunt bizarre holographic figure that had all the right mannerisms, that ranted and raved in the expectable way, that referred knowledgeably to Dulcinea and Rosinante and Mambrino's helmet. The Spanish king was amused and impressed. But to the French the experiment was a failure. They had produced a Don Quixote who was hopelessly locked to the Spain of the late sixteenth century and to the book from which he had sprung. He had no capacity for independent life and thought—no way to perceive the world that had brought him into being, or to comment on it, or to interact with it. There was nothing new or interesting about that. Any actor could dress up in armor and put on a scraggly beard and recite snatches of Cervantes. What had come forth from the computer, after three years of work, was no more than a predictable reprocessing of what had gone into it, sterile, stale.

Which led the Centre Mundial de la Computation to its next fatal step: abandoning the whole thing. *Zut!* and the project was cancelled without any further attempts. No simulated Picassos, no simulated Napoleons, no Joans of Arc. The Quixote event had soured everyone and no one had the heart to proceed with the work from there. Suddenly it had the taint of failure about it, and France—like Germany, like Australia, like the Han Commercial Sphere, like Brazil, like any of the dynamic centers of the modern world, had a horror of failure. Failure was something to be left to the backward nations or the decadent ones—to the Islamic Socialist Union, say, or the Soviet People's Republic, or to that slumbering giant, the United States of America. So the historic-personage simulation scheme was put aside.

The French thought so little of it, as a matter of fact, that after letting it lie fallow for a few years they licensed it to a bunch of Americans, who had heard about it somehow and felt it might be amusing to play with.

"You may really have done it this time," Tanner said.

"Yes. I think we have. After all those false starts."

Tanner nodded. How often had he come into this room with hopes high, only to see some botch, some inanity, some depressing bungle? Richardson had always had an explanation. Sherlock Holmes hadn't worked

because he was fictional: that was a necessary recheck of the French Quixote project, demonstrating that fictional characters didn't have the right sort of reality texture to take proper advantage of the program, not enough ambiguity, not enough contradiction. King Arthur had failed for the same reason. Julius Caesar? Too far in the past, maybe: unreliable data, bordering on fiction. Moses? Ditto. Einstein? Too complex, perhaps, for the project in its present level of development: they needed more experience first. Queen Elizabeth I? George Washington? Mozart? We're learning more each time, Richardson insisted after each failure. This isn't black magic we're doing, you know. We aren't necromancers, we're programmers, and we have to figure out how to give the program what it needs.

And now Pizarro.

"Why do you want to work with *him*?" Tanner had asked, five or six months earlier. "A ruthless medieval Spanish imperialist, is what I remember from school. A bloodthirsty despoiler of a great culture. A man without morals, honor, faith—"

"You may be doing him an injustice," said Richardson. "He's had a bad press for centuries. And there are things about him that fascinate me."

"Such as?"

"His drive. His courage. His absolute confidence. The other side of ruthlessness, the good side of it, is a total concentration on your task, an utter unwillingness to be stopped by any obstacle. Whether or not you approve of the things he accomplished, you have to admire a man who—"

"All right," Tanner said, abruptly growing weary of the whole enterprise. "Do Pizarro. Whatever you want."

The months had passed. Richardson gave him vague progress reports, nothing to arouse much hope. But now Tanner stared at the tiny strutting figure in the holotank and the conviction began to grow in him that Richardson finally had figured out how to use the simulation program as it was meant to be used.

"So you've actually recreated him, you think? Someone who lived—what, five hundred years ago?"

"He died in 1541," said Richardson.

"Almost six hundred, then."

"And he's not like the others—not simply a recreation of a great figure out of the past who can run through a set of pre-programmed speeches. What we've got here, if I'm right, is an artificially generated intelligence which can think for itself in modes other than the ones its programmers think in. Which has more information available to itself, in other words, than we've provided it with. That would be the real accomplishment. That's the fundamental philosophical leap that we were going for when we first got involved with this project. To use the program to give us new

programs that are capable of true autonomous thought—a program that can think like Pizarro, instead of like Lew Richardson's idea of some historian's idea of how Pizarro might have thought."

"Yes," Tanner said.

"Which means we won't just get back the expectable, the predictable. There'll be surprises. There's no way to learn anything, you know, except through surprises. The sudden combination of known components into something brand new. And that's what I think we've managed to bring off here, at long last. Harry, it may be the biggest artificial-intelligence breakthrough ever achieved."

Tanner pondered that. Was it so? Had they truly done it?

And if they had—

Something new and troubling was beginning to occur to him, much later in the game than it should have. Tanner stared at the holographic figure floating in the center of the tank, that fierce old man with the harsh face and the cold, cruel eyes. He thought about what sort of man he must have been—the man after whom this image had been modeled. A man who was willing to land in South America at age fifty or sixty or whatever he had been, an ignorant illiterate Spanish peasant wearing a suit of ill-fitting armor and waving a rusty sword, and set out to conquer a great empire of millions of people spreading over thousands of miles. Tanner wondered what sort of man would be capable of carrying out a thing like that. Now that man's eyes were staring into his own and it was a struggle to meet so implacable a gaze.

After a moment he looked away. His left leg began to quiver. He glanced uneasily at Richardson.

"Look at those eyes, Lew. Christ, they're scary!"

"I know. I designed them myself, from the old prints."

"Do you think he's seeing us right now? Can he do that?"

"All he is is software, Harry."

"He seemed to know it when you expanded the image."

Richardson shrugged. "He's very good software. I tell you, he's got autonomy, he's got volition. He's got an electronic *mind*, is what I'm saying. He may have perceived a transient voltage kick. But there are limits to his perceptions, all the same. I don't think there's any way that he can see anything that's outside the holotank unless it's fed to him in the form of data he can process, which hasn't been done."

"You don't *think*? You aren't sure?"

"Harry. Please."

"This man conquered the entire enormous Incan empire with fifty soldiers, didn't he?"

"In fact I believe it was more like a hundred and fifty."

"Fifty, a hundred fifty, what's the difference? Who knows what you've actually got here? What if you did an even better job than you suspect?"

"What are you saying?"

"What I'm saying is, I'm uneasy all of a sudden. For a long time I didn't think this project was going to produce anything at all. Suddenly I'm starting to think that maybe it's going to produce more than we can handle. I don't want any of your goddamned simulations walking out of the tank and conquering us."

Richardson turned to him. His face was flushed, but he was grinning. "Harry, Harry! For God's sake! Five minutes ago you didn't think we had anything at all here except a tiny picture that wasn't even in focus. Now you've gone so far the other way that you're imagining the worst kind of—"

"I see his eyes, Lew. I'm worried that his eyes see me."

"Those aren't real eyes you're looking at. What you see is nothing but a graphics program projected into a holotank. There's no visual capacity there as you understand the concept. His eyes will see you only if I want them to. Right now they don't."

"But you can make them see me?"

"I can make them see anything I want them to see. I created him, Harry."

"With volition. With autonomy."

"After all this time you start worrying *now* about these things?"

"It's my neck on the line if something that you guys on the technical side make runs amok. This autonomy thing suddenly troubles me."

"I'm still the one with the data gloves," Richardson said. "I twitch my fingers and he dances. That's not really Pizarro down there, remember. And that's no Frankenstein monster either. It's just a simulation. It's just so much data, just a bunch of electromagnetic impulses that I can shut off with one movement of my pinkie."

"Do it, then."

"Shut him off? But I haven't begun to show you—"

"Shut him off, and then turn him on," Tanner said.

Richardson looked bothered. "If you say so, Harry."

He moved a finger. The image of Pizarro vanished from the holotank. Swirling gray mists moved in it for a moment, and then all was white wool. Tanner felt a quick jolt of guilt, as though he had just ordered the execution of the man in the medieval armor. Richardson gestured again, and color flashed across the tank, and then Pizarro reappeared.

"I just wanted to see how much autonomy your little guy really has," said Tanner. "Whether he was quick enough to head you off and escape into some other channel before you could cut his power."

"You really don't understand how this works at all, do you, Harry?"

"I just wanted to see," said Tanner again, sullenly. After a moment's silence he said, "Do you ever feel like God?"

"Like God?"

"You breathed life in. Life of a sort, anyway. But you breathed free will in, too. That's what this experiment is all about, isn't it? All your talk about volition and autonomy? You're trying to recreate a human mind—which means to create it all over again—a mind that can think in its own special way, and come up with its own unique responses to situations, which will not necessarily be the responses that its programmers might anticipate, in fact almost certainly will not be, and which might not be all that desirable or beneficial, either, and you simply have to allow for that risk, just as God, once he gave free will to mankind, knew that He was likely to see all manner of evil deeds being performed by His creations as they exercised that free will—"

"Please, Harry—"

"Listen, is it possible for me to talk with your Pizarro?"

"Why?"

"By way of finding out what you've got there. To get some first-hand knowledge of what the project has accomplished. Or you could say I just want to test the quality of the simulation. Whatever. I'd feel more a part of this thing, more aware of what it's all about in here, if I could have some direct contact with him. Would it be all right if I did that?"

"Yes. Of course."

"Do I have to talk to him in Spanish?"

"In any language you like. There's an interface, after all. He'll think it's his own language coming in, no matter what, sixteenth-century Spanish. And he'll answer you in what seems like Spanish to him, but you'll hear it in English."

"Are you sure?"

"Of course."

"And you don't mind if I make contact with him?"

"Whatever you like."

"It won't upset his calibration, or anything?"

"It won't do any harm at all, Harry."

"Fine. Let me talk to him, then."

There was a disturbance in the air ahead, a shifting, a swirling, like a little whirlwind. Pizarro halted and watched it for a moment, wondering what was coming next. A demon arriving to torment him, maybe. Or an angel. Whatever it was, he was ready for it.

Then a voice out of the whirlwind said, in that same comically exaggerated Castilian Spanish that Pizarro himself had found himself speaking a little while before, "Can you hear me?"

"I hear you, yes. I don't see you. Where are you?"

"Right in front of you. Wait a second. I'll show you." Out of the whirlwind came a strange face that hovered in the middle of nowhere, a face without a body, a lean face, close-shaven, no beard at all, no mustache, the hair cut very short, dark eyes set close together. He had never seen a face like that before.

"What are you?" Pizarro asked. "A demon or an angel?"

"Neither one." Indeed he didn't sound very demonic. "A man, just like you."

"Not much like me, I think. Is a face all there is to you, or do you have a body, too?"

"All you see of me is a face?"

"Yes."

"Wait a second."

"I will wait as long as I have to. I have plenty of time."

The face disappeared. Then it returned, attached to the body of a big, wide-shouldered man who was wearing a long loose gray robe, something like a priest's cassock, but much more ornate, with points of glowing light gleaming on it everywhere. Then the body vanished and Pizarro could see only the face again. He could make no sense out of any of this. He began to understand how the Indians must have felt when the first Spaniards came over the horizon, riding horses, carrying guns, wearing armor.

"You are very strange. Are you an Englishman, maybe?"

"American."

"Ah," Pizarro said, as though that made things better. "An American. And what is that?"

The face wavered and blurred for a moment. There was mysterious new agitation in the thick white clouds surrounding it. Then the face grew steady and said, "America is a country north of Peru. A very large country, where many people live."

"You mean New Spain, which was Mexico, where my kinsman Cortes is Captain-General?"

"North of Mexico. Far to the north of it."

Pizarro shrugged. "I know nothing of those places. Or not very much. There is an island called Florida, yes? And stories of cities of gold, but I think they are only stories. I found the gold, in Peru. Enough to choke on, I found. Tell me this, am I in heaven now?"

"No."

"Then this is hell?"

"Not that, either. Where you are—it's very difficult to explain, actually—"

"I am in America."

"Yes. In America, yes."

"And am I dead?"

There was silence for a moment.

"No, not dead," the voice said uneasily.

"You are lying to me, I think."

"How could we be speaking with each other, if you were dead?"

Pizarro laughed hoarsely. "Are you asking *me*? I understand nothing of what is happening to me in this place. Where are my priests? Where is my page? Send me my brother!" He glared. "Well? Why don't you get them for me?"

"They aren't here. You're here all by yourself, Don Francisco."

"In America. All by myself in your America. Show me your America, then. Is there such a place? Is America all clouds and whorls of light? Where is America? Let me see America. Prove to me that I am in America."

There was another silence, longer than the last. Then the face disappeared and the wall of white cloud began to boil and churn more fiercely than before. Pizarro stared into the midst of it, feeling a mingled sense of curiosity and annoyance. The face did not reappear. He saw nothing at all. He was being toyed with. He was a prisoner in some strange place and they were treating him like a child, like a dog, like—like an Indian. Perhaps this was the retribution for what he had done to King Atahuallpa, then, that fine noble foolish man who had given himself up to him in all innocence, and whom he had put to death so that he might have the gold of Atahuallpa's kingdom.

Well, so be it, Pizarro thought. Atahuallpa accepted all that befell him without complaint and without fear, and so will I. Christ will be my guardian, and if there is no Christ, well, then I will have no guardian, and so be it. So be it.

The voice out of the whirlwind said suddenly, "Look, Don Francisco. This is America."

A picture appeared on the wall of cloud. It was a kind of picture Pizarro had never before encountered or even imagined, one that seemed to open before him like a gate and sweep him in and carry him along through a vista of changing scenes depicted in brilliant, vivid bursts of color. It was like flying high above the land, looking down on an infinite scroll of miracles. He saw vast cities without walls, roadways that unrolled like endless skeins of white ribbon, huge lakes, mighty rivers, gigantic mountains, everything speeding past him so swiftly that he could scarcely absorb any of it. In moments it all became chaotic in his mind: the buildings taller than the highest cathedral spire, the swarming masses of people, the shining metal chariots without beasts to draw them, the stupendous landscapes, the close-packed complexity of it all. Watching

all this, he felt the fine old hunger taking possession of him again: he wanted to grasp this strange vast place, and seize it, and clutch it close, and ransack it for all it was worth. But the thought of that was overwhelming. His eyes grew glassy and his heart began to pound so terrifyingly that he supposed he would be able to feel it thumping if he put his hand to the front of his armor. He turned away, muttering, "Enough. Enough."

The terrifying picture vanished. Gradually the clamor of his heart subsided.

Then he began to laugh.

"Peru!" he cried. "Peru was nothing, next to your America! Peru was a hole! Peru was mud! How ignorant I was! I went to Peru, when there was America, ten thousand times as grand! I wonder what I could find, in America." He smacked his lips and winked. Then, chuckling, he said, "But don't be afraid. I won't try to conquer your America. I'm too old for that now. And perhaps America would have been too much for me, even before. Perhaps." He grinned savagely at the troubled staring face of the short-haired beardless man, the American. "I really am dead, is this not so? I feel no hunger, I feel no pain, no thirst, when I put my hand to my body I do not feel even my body. I am like one who lies dreaming. But this is no dream. Am I a ghost?"

"Not—exactly."

"Not exactly a ghost! Not exactly! No one with half the brains of a pig would talk like that. What is that supposed to mean?"

"It's not easy explaining it in words you would understand, Don Francisco."

"No, of course not. I am very stupid, as everyone knows, and that is why I conquered Peru, because I was so very stupid. But let it pass. I am not exactly a ghost, but I am dead all the same, right?"

"Well—"

"I am dead, yes. But somehow I have not gone to hell or even to purgatory but I am still in the world, only it is much later now. I have slept as the dead sleep, and now I have awakened in some year that is far beyond my time, and it is the time of America. Is this not so? Who is king now? Who is pope? What year is this? 1750? 1800?"

"The year 2130," the face said, after some hesitation.

"Ah." Pizarro tugged thoughtfully at his lower lip. "And the king? Who is king?"

A long pause. "Alfonso is his name," said the face.

"Alfonso? The kings of Aragon were called Alfonso. The father of Ferdinand, he was Alfonso. Alfonso V, he was."

"Alfonso XIX is King of Spain now."

"Ah. Ah. And the pope? Who is pope?"

A pause again. Not to know the name of the pope, immediately upon being asked? How strange. Demon or no, this was a fool.

"Pius," said the voice, when some time had passed. "Pius XVI."

"The sixteenth Pius," said Pizarro somberly. "Jesus and Mary, the sixteenth Pius! What has become of me? Long dead, is what I am. Still unwashed of all my sins. I can feel them clinging to my skin like mud, still. And you are a sorcerer, you American, and you have brought me to life again. Eh? Eh? Is that not so?"

"It is something like that, Don Francisco," the face admitted.

"So you speak your Spanish strangely because you no longer understand the right way of speaking it. Eh? Even I speak Spanish in a strange way, and I speak it in a voice that does not sound like my own. No one speaks Spanish any more, eh? Eh? Only American, they speak. Eh? But you try to speak Spanish, only it comes out stupidly. And you have caused me to speak the same way, thinking it is the way I spoke, though you are wrong. Well, you can do miracles, but I suppose you can't do everything perfectly, even in this land of miracles of the year 2130. Eh? Eh?" Pizarro leaned forward intently. "What do you say? You thought I was a fool, because I don't have reading and writing? I am not so ignorant, eh? I understand things quickly."

"You understand very quickly indeed."

"But you have knowledge of many things that are unknown to me. You must know the manner of my death, for example. How strange that is, talking to you of the manner of my death, but you must know it, eh? When did it come to me? And how? Did it come in my sleep? No, no, how could that be? They die in their sleep in Spain, but not in Peru. How was it, then? I was set upon by cowards, was I? Some brother of Atahuallpa, falling upon me as I stepped out of my house? A slave sent by the Inca Manco, or one of those others? No. No. The Indians would not harm me, for all that I did to them. It was the young Almagro who took me down, was it not, in vengeance for his father, or Juan de Herrada, eh? or perhaps even Picado, my own secretary—no, not Picado, he was my man, always—but maybe Alvarado, the young one, Diego—well, one of those, and it would have been sudden, very sudden or I would have been able to stop them—am I right, am I speaking the truth? Tell me. You know these things. Tell me of the manner of my dying." There was no answer. Pizarro shaded his eyes and peered into the dazzling pearly whiteness. He was no longer able to see the face of the American. "Are you there?" Pizarro said. "Where have you gone? Were you only a dream? American! American! Where have you gone?"

The break in contact was jolting. Tanner sat rigid, hands trembling, lips tightly clamped. Pizarro, in the holotank, was no more than a distant

little streak of color now, no larger than his thumb, gesticulating amid the swirling clouds. The vitality of him, the arrogance, the fierce probing curiosity, the powerful hatreds and jealousies, the strength that had come from vast ventures recklessly conceived and desperately seen through to triumph, all the things that were Francisco Pizarro, all that Tanner had felt an instant before—all that had vanished at the flick of a finger.

After a moment or two Tanner felt the shock beginning to ease. He turned toward Richardson.

"What happened?"

"I had to pull you out of there. I didn't want you telling him anything about how he died."

"I don't know how he died."

"Well, neither does he, and I didn't want to chance it that you did. There's no predicting what sort of psychological impact that kind of knowledge might have on him."

"You talk about him as though he's alive."

"Isn't he?" Richardson said.

"If I said a thing like that, you'd tell me that I was being ignorant and unscientific."

Richardson smiled faintly. "You're right. But somehow I trust myself to know what I'm saying when I say that he's alive. I know I don't mean it literally and I'm not sure about you. What did you think of him, anyway?"

"He's amazing," Tanner said. "Really amazing. The strength of him—I could feel it pouring out at me in waves. And his mind! So quick, the way he picked up on everything. Guessing that he must be in the future. Wanting to know what number pope was in office. Wanting to see what America looked like. And the cockiness of him! Telling me that he's not up to the conquest of America, that he might have tried for it instead of Peru a few years earlier, but not now, now he's a little too old for that. Incredible! Nothing could faze him for long, even when he realized that he must have been dead for a long time. Wanting to know how he died, even!" Tanner frowned. "What age did you make him, anyway, when you put this program together?"

"About sixty. Five or six years after the conquest, and a year or two before he died. At the height of his power, that is."

"I suppose you couldn't have let him have any knowledge of his actual death. That way he'd be too much like some kind of a ghost."

"That's what we thought. We set the cutoff at a time when he had done everything that he had set out to do, when he was the complete Pizarro. But before the end. He didn't need to know about that. Nobody does. That's why I had to yank you, you see? In case you knew. And started to tell him."

Tanner shook his head. "If I ever knew, I've forgotten it. How did it happen?"

"Exactly as he guessed: at the hands of his own comrades."

"So he saw it coming."

"At the age we made him, he already knew that a civil war had started in South America, that the conquistadores were quarreling over the division of the spoils. We built that much into him. He knows that his partner Almagro has turned against him and been beaten in battle, and that they've executed him. What he doesn't know, but obviously can expect, is that Almagro's friends are going to break into his house and try to kill him. He's got it all figured out pretty much as it's going to happen. As it *did* happen, I should say."

"Incredible. To be that shrewd."

"He was a son of a bitch, yes. But he was a genius, too."

"Was he, really? Or is it that you made him one when you set up the program for him?"

"All we put in were the objective details of his life, patterns of event and response. Plus an overlay of commentary by others, his contemporaries and later historians familiar with the record, providing an extra dimension of character density. Put in enough of that kind of stuff and apparently they add up to the whole personality. It isn't *my* personality or that of anybody else who worked on this project, Harry. When you put in Pizarro's set of events and responses you wind up getting Pizarro. You get the ruthlessness and you get the brilliance. Put in a different set, you get someone else. And what we've finally seen, this time, is that when we do our work right we get something out of the computer that's bigger than the sum of what we put in."

"Are you sure?"

Richardson said, "Did you notice that he complained about the Spanish that he thought you were speaking?"

"Yes. He said that it sounded strange, that nobody seemed to know how to speak proper Spanish any more. I didn't quite follow that. Does the interface you built speak lousy Spanish?"

"Evidently it speaks lousy sixteenth-century Spanish," Richardson said. "Nobody knows what sixteenth-century Spanish actually sounded like. We can only guess. Apparently we didn't guess very well."

"But how would *he* know? You synthesized him in the first place! If you don't know how Spanish sounded in his time, how would he? All he should know about Spanish, or about anything, is what you put into him."

"Exactly," Richardson said.

"But that doesn't make any sense, Lew!"

"He also said that the Spanish he heard himself speaking was no good,

and that his own voice didn't sound right to him either. That we had caused him to speak this way, thinking that was how he actually spoke, but we were wrong."

"How could he possibly know what his voice really sounded like, if all he is is a simulation put together by people who don't have the slightest notion of what his voice really—"

"I don't have any idea," said Richardson quietly. "But he *does* know."

"Does he? Or is this just some diabolical Pizarro-like game that he's playing to unsettle us, because *that's* in his character as you devised it?"

"I think he does know," Richardson said.

"Where's he finding it out, then?"

"It's there. We don't know where, but he does. It's somewhere in the data that we put through the permutation network, even if we don't know it and even though we couldn't find it now if we set out to look for it. *He* can find it. He can't manufacture that kind of knowledge by magic, but he can assemble what look to us like seemingly irrelevant bits and come up with new information leading to a conclusion which is meaningful to him. That's what we mean by artificial intelligence, Harry. We've finally got a program that works something like the human brain: by leaps of intuition so sudden and broad that they seem inexplicable and non-quantifiable, even if they really aren't. We've fed in enough stuff so that he can assimilate a whole stew of ostensibly unrelated data and come up with new information. We don't just have a ventriloquist's dummy in that tank. We've got something that thinks it's Pizarro and thinks like Pizarro and knows things that Pizarro knew and we don't. Which means we've accomplished the qualitative jump in artificial intelligence capacity that we set out to achieve with this project. It's awesome. I get shivers down my back when I think about it."

"I do too," Tanner said. "But not so much from awe as fear."

"Fear?"

"Knowing now that he has capabilities beyond those he was programmed for, how can you be so absolutely certain that he can't commandeer your network somehow and get himself loose?"

"It's technically impossible. All he is is electromagnetic impulses. I can pull the plug on him any time I like. There's nothing to panic over here. Believe me, Harry."

"I'm trying to."

"I can show you the schematics. We've got a phenomenal simulation in that computer, yes. But it's still only a simulation. It isn't a vampire, it isn't a werewolf, it isn't anything supernatural. It's just the best damned computer simulation anyone's ever made."

"It makes me uneasy. *He* makes me uneasy."

"He should. The power of the man, the indomitable nature of him—why

do you think I summoned him up, Harry? He's got something that we don't understand in this country any more. I want us to study him. I want us to try to learn what that kind of drive and determination is really like. Now that you've talked to him, now that you've touched his spirit, of course you're shaken up by him. He radiates tremendous confidence. He radiates fantastic faith in himself. That kind of man can achieve anything he wants—even conquer the whole Inca empire with a hundred fifty men, or however many it was. But I'm not frightened of what we've put together here. And you shouldn't be either. We should all be damned proud of it. You as well as the people on the technical side. And you will be, too."

"I hope you're right," Tanner said.

"You'll see."

For a long moment Tanner stared in silence at the holotank, where the image of Pizarro had been.

"Okay," said Tanner finally. "Maybe I'm overreacting. Maybe I'm sounding like the ignoramus layman that I am. I'll take it on faith that you'll be able to keep your phantoms in their boxes."

"We will," Richardson said.

"Let's hope so. All right," said Tanner. "So what's your next move?"

Richardson looked puzzled. "My next move?"

"With this project. Where does it go from here?"

Hesitantly Richardson said, "There's no formal proposal yet. We thought we'd wait until we had approval from you on the initial phase of the work, and then—"

"How does this sound?" Tanner asked. "I'd like to see you start in on another simulation right away."

"Well—yes, yes, of course—"

"And when you've got him worked up, Lew, would it be feasible for you to put him right there in the tank with Pizarro?"

Richardson looked startled. "To have a sort of dialog with him, you mean?"

"Yes."

"I suppose we could do that," Richardson said cautiously. "Should do that. Yes. Yes. A very interesting suggestion, as a matter of fact." He ventured an uneasy smile. Up till now Tanner had kept in the background of this project, a mere management functionary, an observer, virtually an outsider. This was something new, his interjecting himself into the planning process, and plainly Richardson didn't know what to make of it. Tanner watched him fidget. After a little pause Richardson said, "Was there anyone particular you had in mind for us to try next?"

"Is that new parallax thing of yours ready to try?" Tanner asked. "The

one that's supposed to compensate for time distortion and myth contamination?"

"Just about. But we haven't tested—"

"Good," Tanner said. "Here's your chance. What about trying for Socrates?"

There was billowing whiteness below him, and on every side, as though all the world were made of fleece. He wondered if it might be snow. That was not something he was really familiar with. It snowed once in a great while in Athens, yes, but usually only a light dusting that melted in the morning sun. Of course he had seen snow aplenty when he had been up north in the war, at Potidaea, in the time of Pericles. But that had been long ago; and that stuff, as best he remembered it, had not been much like this. There was no quality of coldness about the whiteness that surrounded him now. It could just as readily be great banks of clouds.

But what would clouds be doing *below* him? Clouds, he thought, are mere vapor, air and water, no substance to them at all. Their natural place was overheard. Clouds that gathered at one's feet had no true quality of cloudness about them.

Snow that had no coldness? Clouds that had no buoyancy? Nothing in this place seemed to possess any quality that was proper to itself in this place, including himself. He seemed to be walking, but his feet touched nothing at all. It was more like moving through air. But how could one move in the air? Aristophanes, in that mercilessly mocking play of his, had sent him floating through the clouds suspended in a basket, and made him say things like, "I am traversing the air and contemplating the sun." That was Aristophanes' way of playing with him, and he had not been seriously upset, though his friends had been very hurt on his behalf. Still, that was only a play.

This felt real, insofar as it felt like anything at all.

Perhaps he was dreaming, and the nature of his dream was that he thought he was really doing the things he had done in Aristophanes' play. What was that lovely line? "I have to suspend my brain and mingle the subtle essence of my mind with this air, which is of the same nature, in order clearly to penetrate the things of heaven." Good old Aristophanes! Nothing was sacred to him! Except, of course, those things that were truly sacred, such as wisdom, truth, virtue. "I would have discovered nothing if I had remained on the ground and pondered from below the things that are above: for the earth by its force attracts the sap of the mind to itself. It's the same way with watercress." And Socrates began to laugh.

He held his hands before him and studied them, the short sturdy fingers, the thick powerful wrists. His hands, yes. His old plain hands

that had stood him in good stead all his life, when he had worked as a stonemason as his father had, when he had fought in his city's wars, when he had trained at the gymnasium. But now when he touched them to his face he felt nothing. There should be a chin here, a forehead, yes, a blunt stubby nose, thick lips; but there was nothing. He was touching air. He could put his hand right through the place where his face should be. He could put one hand against the other, and press with all his might, and feel nothing.

This is a very strange place indeed, he thought.

Perhaps it is that place of pure forms that young Plato liked to speculate about, where everything is perfect and nothing is quite real. Those are ideal clouds all around me, not real ones. This is ideal air upon which I walk. I myself am the ideal Socrates, liberated from my coarse ordinary body. Could it be? Well, maybe so. He stood for a while, considering that possibility. The thought came to him that this might be the life after life, in which case he might meet some of the gods, if there were any gods in the first place, and if he could manage to find them. I would like that, he thought. Perhaps they would be willing to speak with me. Athena would discourse with me on wisdom, or Hermes on speed, or Ares on the nature of courage, or Zeus on—well, whatever Zeus cared to speak on. Of course I would seem to be the merest fool to them, but that would be all right: anyone who expects to hold discourse with the gods as though he were their equal is a fool. I have no such illusion. If there are gods at all, surely they are far superior to me in all respects, for otherwise why would men regard them as gods?

Of course he had serious doubts that the gods existed at all. But if they did, it was reasonable to think that they might be found in a place such as this.

He looked up. The sky was radiant with brilliant golden light. He took a deep breath and smiled and set out across the fleecy nothingness of this airy world to see if he could find the gods.

Tanner said, "What do you think now? Still so pessimistic?"

"It's too early to say," said Richardson, looking glum.

"He looks like Socrates, doesn't he?"

"That was the easy part. We've got plenty of descriptions of Socrates that came down from people who knew him, the flat wide nose, the bald head, the thick lips, the short neck. A standard Socrates face that everybody recognizes, just as they do Sherlock Holmes, or Don Quixote. So that's how we made him look. It doesn't signify anything important. It's what's going on inside his head that'll determine whether we really have Socrates."

"He seems calm and good-humored as he wanders around in there. The way a philosopher should."

"Pizarro seemed just as much of a philosopher when we turned him loose in the tank."

"Pizarro may be just as much of a philosopher," Tanner said. "Neither man's the sort who'd be likely to panic if he found himself in some mysterious place." Richardson's negativism was beginning to bother him. It was as if the two men had exchanged places: Richardson now uncertain of the range and power of his own program, Tanner pushing the way on and on toward bigger and better things.

Bleakly Richardson said, "I'm still pretty skeptical. We've tried the new parallax filters, yes. But I'm afraid we're going to run into the same problem the French did with Don Quixote, and that we did with Holmes and Moses and Caesar. There's too much contamination of the data by myth and fantasy. The Socrates who has come down to us is as much fictional as real, or maybe *all* fictional. For all we know, Plato made up everything we think we know about him, the same way Conan Doyle made up Holmes. And what we're going to get, I'm afraid, will be something second-hand, something lifeless, something lacking in the spark of self-directed intelligence that we're after."

"But the new filters—"

"Perhaps. Perhaps."

Tanner shook his head stubbornly. "Holmes and Don Quixote are fiction through and through. They exist in only one dimension, constructed for us by their authors. You cut through the distortions and fantasies of later readers and commentators and all you find underneath is a made-up character. A lot of Socrates may have been invented by Plato for his own purposes, but a lot wasn't. He really existed. He took an actual part in civic activities in fifth-century Athens. He figures in books by a lot of other contemporaries of his besides Plato's dialogues. That gives us the parallax you're looking for, doesn't it—the view of him from more than one viewpoint?"

"Maybe it does. Maybe not. We got nowhere with Moses. Was *he* fictional?"

"Who can say? All you had to go by was the Bible. And a ton of Biblical commentary, for whatever that was worth. Not much, apparently."

"And Caesar? You're not going to tell me that Caesar wasn't real," said Richardson. "But what we have of him is evidently contaminated with myth. When we synthesized him we got nothing but a caricature, and I don't have to remind you how fast even that broke down into sheer gibberish."

"Not relevant," Tanner said. "Caesar was early in the project. You

know much more about what you're doing now. I think this is going to work."

Richardson's dogged pessimism, Tanner decided, must be a defense mechanism, designed to insulate himself against the possibility of a new failure. Socrates, after all, hadn't been Richardson's own choice. And this was the first time he had used these new enhancement methods, the parallax program that was the latest refinement of the process.

Tanner looked at him. Richardson remained silent.

"Go on," Tanner said. "Bring up Pizarro and let the two of them talk to each other. Then we'll find out what sort of Socrates you've conjured up here."

Once again there was a disturbance in the distance, a little dark blur on the pearly horizon, a blotch, a flaw in the gleaming whiteness. Another demon is arriving, Pizarro thought. Or perhaps it is the same one as before, the American, the one who liked to show himself only as a face, with short hair and no beard.

But as this one drew closer Pizarro saw that he was different from the last, short and stocky, with broad shoulders and a deep chest. He was nearly bald and his thick beard was coarse and unkempt. He looked old, at least sixty, maybe sixty-five. He looked very ugly, too, with bulging eyes and a flat nose that had wide, flaring nostrils, and a neck so short that his oversized head seemed to sprout straight from his trunk. All he wore was a thin, ragged brown robe. His feet were bare.

"You, there," Pizarro called out. "You! Demon! Are you also an American, demon?"

"Your pardon. An Athenian, did you say?"

"American is what I said. That's what the last one was. Is that where you come from too, demon? America?"

A shrug. "No, I think not. I am of Athens." There was a curious mocking twinkle in the demon's eyes.

"A Greek? This demon is a Greek?"

"I am of Athens," the ugly one said again. "My name is Socrates, the son of Sophroniscus. I could not tell you what a Greek is, so perhaps I may be one, but I think not, unless a Greek is what you call a man of Athens." He spoke in a slow, plodding way, like one who was exceedingly stupid. Pizarro had sometimes met men like this before, and in his experience they were generally not as stupid as they wanted to be taken for. He felt caution rising in him. "And I am no demon, but just a plain man: very plain, as you can easily see."

Pizarro snorted. "You like to chop words, do you?"

"It is not the worst of amusements, my friend," said the other, and put his hands together behind his back in the most casual way, and stood

there calmly, smiling, looking off into the distance, rocking back and forth on the balls of his feet.

"Well?" Tanner said. "Do we have Socrates or not? I say that's the genuine article there."

Richardson looked up and nodded. He seemed relieved and quizzical both at once. "So far so good, I have to say. He's coming through real and true."

"Yes."

"We may actually have worked past the problem of information contamination that ruined some of the earlier simulations. We're not getting any of the signal degradation we encountered then."

"He's some character, isn't he?" Tanner said. "I liked the way he just walked right up to Pizarro without the slightest sign of uneasiness. He's not at all afraid of him."

"Why should he be?" Richardson asked.

"Wouldn't you? If you were walking along through God knows what kind of unearthly place, not knowing where you were or how you got there, and suddenly you saw a ferocious-looking bastard like Pizarro standing in front of you wearing full armor and carrying a sword—" Tanner shook his head. "Well, maybe not. He's Socrates, after all, and Socrates wasn't afraid of anything except boredom."

"And Pizarro's just a simulation. Nothing but software."

"So you've been telling me all along. But Socrates doesn't know that."

"True," Richardson said. He seemed lost in thought a moment. "Perhaps there *is* some risk."

"Huh?"

"If our Socrates is anything like the one in Plato, and he surely ought to be, then he's capable of making a considerable pest of himself. Pizarro may not care for Socrates' little verbal games. If he doesn't feel like playing, I suppose there's a theoretical possibility that he'll engage in some sort of aggressive response."

That took Tanner by surprise. He swung around and said, "Are you telling me that there's some way he can *harm* Socrates?"

"Who knows?" said Richardson. "In the real world one program can certainly crash another one. Maybe one simulation can be dangerous to another one. This is all new territory for all of us, Harry. Including the people in the tank."

The tall grizzled-looking man said, scowling, "You tell me you're an Athenian, but not a Greek. What sense am I supposed to make of that? I could ask Pedro de Candia, I guess, who is a Greek but not an Athenian. But he's not here. Perhaps you're just a fool, eh? Or you think I am."

"I have no idea what you are. Could it be that you are a god?"

"A god?"

"Yes," Socrates said. He studied the other impassively. His face was harsh, his gaze was cold. "Perhaps you are Ares. You have a fierce warlike look about you, and you wear armor, but not such armor as I have ever seen. This place is so strange that it might well be the abode of the gods, and that could be a god's armor you wear, I suppose. If you are Ares, then I salute you with the respect that is due you. I am Socrates of Athens, the stonemason's son."

"You talk a lot of nonsense. I don't know your Ares."

"Why, the god of war, of course! Everyone knows that. Except barbarians, that is. Are you a barbarian, then? You sound like one, I must say—but then, I seem to sound like a barbarian myself, and I've spoken the tongue of Hellas all my life. There are many mysteries here, indeed."

"Your language problem again," Tanner said. "Couldn't you even get classical Greek to come out right? Or are they both speaking Spanish to each other?"

"Pizarro thinks they're speaking Spanish. Socrates thinks they're speaking Greek. And of course the Greek is off. We don't know how *anything* that was spoken before the age of recordings sounded. All we can do is guess."

"But can't you—"

"Shhh," Richardson said.

Pizarro said, "I may be a bastard, but I'm no barbarian, fellow, so curb your tongue. And let's have no more blasphemy out of you either."

"If I blaspheme, forgive me. It is in innocence. Tell me where I trespass, and I will not do it again."

"This crazy talk of gods. Of my being a god. I'd expect a heathen to talk like that, but not a Greek. But maybe you're a heathen kind of Greek, and not to be blamed. It's heathens who see gods everywhere. Do I look like a god to you? I am Francisco Pizarro, of Trujillo in Extremadura, the son of the famous soldier Gonzalo Pizarro, colonel of infantry, who served in the wars of Gonzalo de Cordova whom men call the Great Captain. I have fought some wars myself."

"Then you are not a god but simply a soldier? Good. I too have been a soldier. I am more at ease with soldiers than with gods, as most people are, I would think."

"A soldier? You?" Pizarro smiled. This shabby ordinary little man, more bedraggled-looking than any self-respecting groom would be, a soldier? "In which wars?"

"The wars of Athens. I fought at Potidaea, where the Corinthians were



making trouble, and withholding the tribute that was due us. It was very cold there, and the siege was long and bleak, but we did our duty. I fought again some years later at Delium against the Boeotians. Laches was our general then, but it went badly for us, and we did our best fighting in retreat. And then," Socrates said, "when Brasidas was in Amphipolis, and they sent Cleon to drive him out, I—"

"Enough," said Pizarro with an impatient wave of his hand. "These wars are unknown to me." A private soldier, a man of the ranks, no doubt. "Well, then this is the place where they send dead soldiers, I suppose."

"Are we dead, then?"

"Long ago. There's an Alfonso who's king, and a Pius who's pope, and you wouldn't believe their numbers. Pius the Sixteenth, I think the demon said. And the American said also that it is the year 2130. The last year that I can remember was 1539. What about you?"

The one who called himself Socrates shrugged again. "In Athens we use a different reckoning. But let us say, for argument's sake, that we are dead. I think that is very likely, considering what sort of place this seems to be, and how airy I find my body to be. So we have died, and this is the life after life. I wonder: is this a place where virtuous men are sent, or those who were not virtuous? Or do all men go to the same place after death, whether they were virtuous or not? What would you say?"

"I haven't figured that out yet," said Pizarro.

"Well, were you virtuous in your life, or not?"

"Did I sin, you mean?"

"Yes, we could use that word."

"Did I sin, he wants to know," said Pizarro, amazed. "He asks, Was I a sinner? Did I live a virtuous life? What business is that of his?"

"Humor me," said Socrates. "For the sake of the argument, if you will, allow me a few small questions—"

"So it's starting," Tanner said. "You see? You really *did* do it! Socrates is drawing him into a dialog!"

Richardson's eyes were glowing. "He is, yes. How marvelous this is, Harry!"

"Socrates is going to talk rings around him."

"I'm not so sure of that," Richardson said.

"I gave as good as I got," said Pizarro. "If I was injured, I gave injury back. There's no sin in that. It's only common sense. A man does what is necessary to survive and to protect his place in the world. Sometimes I might forget a fast-day, yes, or use the Lord's name in vain—those are sins, I suppose, Fray Vicente was always after me for things like

that—but does that make me a sinner? I did my penances as soon as I could find time for them. It's a sinful world and I'm no different from anyone else, so why be harsh on me? Eh? God made me as I am. I'm done in His image. And I have faith in His Son."

"So you are a virtuous man, then?"

"I'm not a sinner, at any rate. As I told you, if ever I sinned I did my contrition, which made it the same as if the sin hadn't ever happened."

"Indeed," said Socrates. "Then you are a virtuous man and I have come to a good place. But I want to be absolutely sure. Tell me again: is your conscience completely clear?"

"What are you, a confessor?"

"Only an ignorant man seeking understanding. Which you can provide, by taking part with me in the exploration. If I have come to the place of virtuous men, then I must have been virtuous myself when I lived. Ease my mind, therefore, and let me know whether there is anything on your soul that you regret having done."

Pizarro stirred uneasily. "Well," he said, "I killed a king."

"A wicked one? An enemy of your city?"

"No. He was wise and kind."

"Then you have reason for regret indeed. For surely that is a sin, to kill a wise king."

"But he was a heathen."

"A what?"

"He denied God."

"He denied his own god?" said Socrates. "Then perhaps it was not so wrong to kill him."

"No. He denied mine. He *preferred* his own. And so he was a heathen. And all his people were heathens, since they followed his way. That could not be. They were at risk of eternal damnation because they followed him. I killed him for the sake of his people's souls. I killed him out of the love of God."

"But would you not say that all gods are the reflection of the one God?"

Pizarro considered that. "In a way, that's true, I suppose."

"And is the service of God not itself godly?"

"How could it be anything but godly, Socrates?"

"And you would say that one who serves his god faithfully according to the teachings of his god is behaving in a godly way?"

Frowning, Pizarro said, "Well—if you look at at that way, yes—"

"Then I think the king you killed was a godly man, and by killing him you sinned against God."

"Wait a minute!"

"But think of it: by serving his god he must also have served yours,

for any servant of a god is a servant of the true God who encompasses all our imagined gods."

"No," said Pizarro sullenly. "How could he have been a servant of God? He knew nothing of Jesus. He had no understanding of the Trinity. When the priest offered him the Bible, he threw it to the ground in scorn. He was a heathen, Socrates. And so are you. You don't know anything of these matters at all, if you think that Atahuallpa was godly. Or if you think you're going to get me to think so."

"Indeed I have very little knowledge of anything. But you say he was a wise man, and kind?"

"In his heathen way."

"And a good king to his people?"

"So it seemed. They were a thriving people when I found them."

"Yet he was not godly."

"I told you. He had never had the sacraments, and in fact he spurned them right up until the moment of his death, when he accepted baptism. Then he came to be godly. But by then the sentence of death was upon him and it was too late for anything to save him."

"Baptism? Tell me what that is, Pizarro."

"A sacrament."

"And that is?"

"A holy rite. Done with holy water, by a priest. It admits one to Holy Mother Church, and brings forgiveness from sin both original and actual, and gives the gift of the Holy Spirit."

"You must tell me more about these things another time. So you made this good king godly by this baptism? And then you killed him?"

"Yes."

"But he was godly when you killed him. Surely, then, to kill him was a sin."

"He had to die, Socrates!"

"And why was that?" asked the Athenian.

"Socrates is closing in for the kill," Tanner said. "Watch this!"

"I'm watching. But there isn't going to be any kill," said Richardson. "Their basic assumptions are too far apart."

"You'll see."

"Will I?"

Pizarro said, "I've already told you why he had to die. It was because his people followed him in all things. And so they worshipped the sun, because he said the sun was God. Their souls would have gone to hell if we had allowed them to continue that way."

"But if they followed him in all things," said Socrates, "then surely

they would have followed him into baptism, and become godly, and thus done that which was pleasing to you and to your god! Is that not so?"

"No," said Pizarro, twisting his fingers in his beard.

"Why do you think that?"

"Because the king agreed to be baptized only after we had sentenced him to death. He was in the way, don't you see? He was an obstacle to our power! So we had to get rid of him. He would never have led his people to the truth of his own free will. That was why we had to kill him. But we didn't want to kill his soul as well as his body, so we said to him, Look, Atahuallpa, we're going to put you to death, but if you let us baptize you we'll strangle you quickly, and if you don't we'll burn you alive and it'll be very slow. So of course he agreed to be baptized, and we strangled him. What choice was there for anybody? He had to die. He still didn't believe the true faith, as we all well knew. Inside his head he was as big a heathen as ever. But he died a Christian all the same."

"A what?"

"A Christian! A Christian! One who believes in Jesus Christ the Son of God!"

"The *son* of God," Socrates said, sounding puzzled. "And do Christians believe in God too, or only his son?"

"What a fool you are!"

"I would not deny that."

"There is God the Father, and God the Son, and then there is the Holy Spirit."

"Ah," said Socrates. "And which one did your Atahuallpa believe in, then, when the strangler came for him?"

"None of them."

"And yet he died a Christian? Without believing in any of your three gods? How is that?"

"Because of the baptism," said Pizarro in rising annoyance. "What does it matter what he believed? The priest sprinkled the water on him! The priest said the words! If the rite is properly performed, the soul is saved regardless of what the man understands or believes! How else could you baptize an infant? An infant understands nothing and believes nothing—but he becomes a Christian when the water touches him!"

"Much of this is mysterious to me," said Socrates. "But I see that you regard the king you killed as godly as well as wise, because he was washed by the water your gods require, and so you killed a good king who now lived in the embrace of your gods because of the baptism. Which seems wicked to me; and so this cannot be the place where the virtuous are sent after death, so it must be that I too was not virtuous, or else that I have misunderstood everything about this place and why we are in it."

"Damn you, are you trying to drive me crazy?" Pizarro roared, fumbling at the hilt of his sword. He drew it and waved it around in fury. "If you don't shut your mouth I'll cut you in thirds!"

"Uh-oh," Tanner said. "So much for the dialectical method."

Socrates said mildly, "It isn't my intention to cause you any annoyance, my friend. I'm only trying to learn a few things."

"You are a fool!"

"That is certainly true, as I have already acknowledged several times. Well, if you mean to strike me with your sword, go ahead. But I don't think it'll accomplish very much."

"Damn you," Pizarro muttered. He stared at his sword and shook his head. "No. No, it won't do any good, will it? It would go through you like air. But you'd just stand there and let me try to cut you down, and not even blink, right? Right?" He shook his head. "And yet you aren't stupid. You argue like the shrewdest priest I've ever known."

"In truth I am stupid," said Socrates. "I know very little at all. But I strive constantly to attain some understanding of the world, or at least to understand something of myself."

Pizarro glared at him. "No," he said. "I won't buy this false pride of yours. I have a little understanding of people myself, old man. I'm on to your game."

"What game is that, Pizarro?"

"I can see your arrogance. I see that you believe you're the wisest man in the world, and that it's your mission to go around educating poor sword-waving fools like me. And you pose as a fool to disarm your adversaries before you humiliate them."

"Score one for Pizarro," Richardson said. "He's wise to Socrates' little tricks, all right."

"Maybe he's read some Plato," Tanner suggested.

"He was illiterate."

"That was then. This is now."

"Not guilty," said Richardson. "He's operating on peasant shrewdness alone, and you damned well know it."

"I wasn't being serious," Tanner said. He leaned forward, peering toward the holotank. "God, what an astonishing thing this is, listening to them going at it. They seem absolutely real."

"They are," said Richardson.

"No, Pizarro, I am not wise at all," Socrates said. "But, stupid as I am, it may be that I am not the least wise man who ever lived."

"You think you're wiser than I am, don't you?"

"How can I say? First tell me how wise you are."

"Wise enough to begin my life as a bastard tending pigs and finish it as Captain-General of Peru."

"Ah, then you must be very wise."

"I think so, yes."

"Yet you killed a wise king because he wasn't wise enough to worship God the way you wished him to. Was that so wise of you, Pizarro? How did his people take it, when they found out that their king had been killed?"

"They rose in rebellion against us. They destroyed their own temples and palaces, and hid their gold and silver from us, and burned their bridges, and fought us bitterly."

"Perhaps you could have made some better use of him by *not* killing him, do you think?"

"In the long run we conquered them and made them Christians. It was what we intended to accomplish."

"But the same thing might have been accomplished in a wiser way?"

"Perhaps," said Pizarro grudgingly. "Still, we accomplished it. That's the main thing, isn't it? We did what we set out to do. If there was a better way, so be it. Angels do things perfectly. We were no angels, but we achieved what we came for, and so be it, Socrates. So be it."

"I'd call that one a draw," said Tanner.

"Agreed."

"It's a terrific game they're playing."

"I wonder who we can use to play it next," said Richardson.

"I wonder what we can do with this besides using it to play games," said Tanner.

"Let me tell you a story," said Socrates. "The oracle at Delphi once said to a friend of mine, 'There is no man wiser than Socrates,' but I doubted that very much, and it troubled me to hear the oracle saying something that I knew was so far from the truth. So I decided to look for a man who was obviously wiser than I was. There was a politician in Athens who was famous for his wisdom, and I went to him and questioned him about many things. After I had listened to him for a time, I came to see that though many people, and most of all he himself, thought that he was wise, yet he was not wise. He only imagined that he was wise. So I realized that I must be wiser than he. Neither of us knew anything that was really worthwhile, but he knew nothing and thought that he knew, whereas I neither knew anything nor thought that I did. At least on one

point, then, I was wiser than he: I didn't think that I knew what I didn't know."

"Is this intended to mock me, Socrates?"

"I feel only the deepest respect for you, friend Pizarro. But let me continue. I went to other wise men, and they too, though sure of their wisdom, could never give me a clear answer to anything. Those whose reputations for wisdom were the highest seemed to have the least of it. I went to the great poets and playwrights. There was wisdom in their works, for the gods had inspired them, but that did not make *them* wise, though they thought that it had. I went to the stonemasons and potters and other craftsmen. They were wise in their own skills, but most of them seemed to think that that made them wise in everything, which did not appear to be the case. And so it went. I was unable to find anyone who showed true wisdom. So perhaps the oracle was right: that although I am an ignorant man, there is no man wiser than I am. But oracles often are right without there being much value in it, for I think that all she was saying was that no man is wise at all, that wisdom is reserved for the gods. What do you say, Pizarro?"

"I say that you are a great fool, and very ugly besides."

"You speak the truth. So, then, you are wise after all. And honest."

"Honest, you say? I won't lay claim to that. Honesty's a game for fools. I lied whenever I needed to. I cheated. I went back on my word. I'm not proud of that, mind you. It's simply what you have to do to get on in the world. You think I wanted to tend pigs all my life? I wanted gold, Socrates! I wanted power over men! I wanted fame!"

"And did you get those things?"

"I got them all."

"And were they gratifying, Pizarro?"

Pizarro gave Socrates a long look. Then he pursed his lips and spat.

"They were worthless."

"Were they, do you think?"

"Worthless, yes. I have no illusions about that. But still it was better to have had them than not. In the long run nothing has any meaning, old man. In the long run we're all dead, the honest man and the villain, the king and the fool. Life's a cheat. They tell us to strive, to conquer, to gain—and for what? What? For a few years of strutting around. Then it's taken away, as if it had never been. A cheat, I say." Pizarro paused. He stared at his hands as though he had never seen them before. "Did I say all that just now? Did I mean it?" He laughed. "Well, I suppose I did. Still, life is all there is, so you want as much of it as you can. Which means getting gold, and power, and fame."

"Which you had. And apparently have no longer. Friend Pizarro, where are we now?"

"I wish I knew."

"So do I," said Socrates soberly.

"He's real," Richardson said. "They both are. The bugs are out of the system and we've got something spectacular here. Not only is this going to be of value to scholars, I think it's also going to be a tremendous entertainment gimmick, Harry."

"It's going to be much more than that," said Tanner in a strange voice.

"What do you mean by that?"

"I'm not sure yet," Tanner said. "But I'm definitely on to something big. It just began to hit me a couple of minutes ago, and it hasn't really taken shape yet. But it's something that might change the whole god-damned world."

Richardson looked amazed and bewildered.

"What the hell are you talking about, Harry?"

Tanner said, "A new way of settling political disputes, maybe. What would you say to a kind of combat-at-arms between one nation and another? Like a medieval tournament, so to speak. With each side using champions that we simulate for them—the greatest minds of all the past, brought back and placed in competition—" He shook his head. "Something like that. It needs a lot of working out, I know. But it's got possibilities."

"A medieval tournament—combat-at-arms, using simulations? Is that what you're saying?"

"Verbal combat. Not actual jousts, for Christ's sake."

"I don't see how—" Richardson began.

"Neither do I, not yet. I wish I hadn't even spoken of it."

"But—"

"Later, Lew. Later. Let me think about it a little while more."

"You don't have any idea what this place is?" Pizarro said.

"Not at all. But I certainly think this is no longer the world where we once dwelled. Are we dead, then? How can we say? You look alive to me."

"And you to me."

"Yet I think we are living some other kind of life. Here, give me your hand. Can you feel mine against yours?"

"No. I can't feel anything."

"Nor I. Yet I see two hands clasping. Two old men standing on a cloud, clasping hands." Socrates laughed. "What a great rogue you are, Pizarro!"

"Yes, of course. But do you know something, Socrates? You are too. A windy old rogue. I like you. There were moments when you were driving me crazy with all your chatter, but you amused me too. Were you really a soldier?"

"When my city asked me, yes."

"For a soldier, you're damned innocent about the way the world works, I have to say. But I guess I can teach you a thing or two."

"Will you?"

"Gladly," said Pizarro.

"I would be in your debt," Socrates said.

"Take Atahuallpa," Pizarro said. "How can I make you understand why I had to kill him? There weren't even two hundred of us, and twenty-four millions of them, and his word was law, and once he was gone they'd have no one to command them. So of course we had to get rid of him if we wanted to conquer them. And so we did, and then they fell."

"How simple you make it seem."

"Simple is what it was. Listen, old man, he would have died sooner or later anyway, wouldn't he? This way I made his death useful: to God, to the Church, to Spain. And to Francisco Pizarro. Can you understand that?"

"I think so," said Socrates. "But do you think King Atahuallpa did?"

"Any king would understand such things."

"Then he should have killed you the moment you set foot in his land."

"Unless God meant us to conquer him, and allowed him to understand that. Yes. Yes, that must have been what happened."

"Perhaps he is in this place, too, and we could ask him," said Socrates.

Pizarro's eyes brightened. "Mother of God, yes! A good idea! And if he didn't understand, why, I'll try to explain it to him. Maybe you'll help me. You know how to talk, how to move words around and around. What do you say? Would you help me?"

"If we meet him, I would like to talk with him," Socrates said. "I would indeed like to know if he agrees with you on the subject of the usefulness of his being killed by you."

Grinning, Pizarro said, "Slippery, you are! But I like you. I like you very much. Come. Let's go look for Atahuallpa." ●



Complications

From a Changeling Star

By Jeffrey A. Carver

Bantam, \$3.95 (paper)

Chapter One of Jeffrey A. Carver's *From a Changeling Star* begins in a wilderness area with a man being killed—several times. He keeps healing and getting up. The killer is a mysterious being referred to as a *hrisi* (sapient—uses weapons and all that) and who rates a distinctive pronoun—"hir" instead of he or she. (At first you think it's a typo, until it's repeated.)

Naturally you want an explanation of this intriguing event. But it takes a good part of the story before anything becomes clear. The killer finally gives up, and the persistent Lazarus wanders around in the woods until he comes upon a lodge. His memory is seriously impaired, and half the book is spent going in and out of blackouts with him as he pieces together who and what he is.

The problem is that the answers, along with the various forces at work, are inordinately complicated. This is an interstellar future with complex politics and various systems (star and political) in ideological and economic conflict. All

sorts of intricate technologies are being developed: you find that Ruskin (the reluctant murder victim) has his revivification abilities, not to mention protean shape changing talents, due to molecular sized invasive agents (nano-agents, aka NAGs) which have been introduced into his body. In fact, there may be two sets in his body. And to correct the situation, yet another set is sent in by a mysterious experimental scientist, three hundred years dead but whose consciousness is "alive and well in an organocrystalline cogitative system."

And it turns out that Ruskin himself is developing a sort of gate through space which is dependent on working with a star going nova, which Betelgeuse is just about to do. So Ruskin (whose body is still a battleground for various mind-and body-changing NAGs) and various companions are off to the station orbiting Betelgeuse. Here everything comes to a cosmic climax with various betrayals and double-crosses (from inside and outside), and a union with the consciousness of the star, who refers to itself as "Bright" and whom we've met in various mysterious asides throughout the book. The determined reader may at this point

have put all the pieces together; I'm far from sure that I have.

It's obvious Carver has a talent for interesting ideas. Too many of them, however, combined with an overcomplex plot and style, can make for awfully slow going.

More Complications

Crisis of Empire: An Honorable Defense

By David Drake & Thomas T.

Thomas

Baen Books, \$3.95 (paper)

There's complicated, and then there's complicated. David Drake and Thomas T. Thomas have presented us with a most intricately wrought future in *An Honorable Defense*, which is part one of an apparently open-ended series titled "Crisis of Empire."

This one, too, is composed of a dizzying number of components: an interstellar Empire of four thousand worlds, divided into fiefdoms, clusters, and whatall, but here called "The Pact"; a host of alien races of giddy variety which make up the human-led Pact; a high-tech society in which anything seems possible, but which is riddled with human ethnocentric prejudices and as much intrigue as any Byzantine court.

And there's a pretty complex plot, too, set in motion by the assassination of the Hereditary High Secretary to the Pact Council in Absentia (read Emperor). What is set in motion is a series of events in a distant part of the Pact, the Aurora Cluster. The central char-

acter is one Taddeuz Beringas, a middle level functionary in the Communications Department, described initially as "pedantic, foppish, soft-centered, self-centered." It's he that initially receives the news of the assassination, and it so happens that at the moment he is by default the top man in Communications in the Cluster, since the directorship is in a state of transition.

The assassination brings various bids for power into action, to which communications seem vital. And suddenly Tad is up to his neck, approached by representatives of two of the great trading powers, the dominant conglomerate Halken Maru and the Imperial Intelligence Service, Kona Tatsu. He is abandoned in a runaway flyer, crash lands in the Palace grounds, fights off an invasion of his apartment, and then things *really* get hairy. It all snowballs into several crackerjack space battles and the making of a hero out of a wimp.

The authors keep all this on track with a more or less single-lined narrative, well-paced and, despite a multitude of imaginative details, kept pretty consistently comprehensible.

What makes this novel special, though, is the humor and intelligence brought to it by the authors. The characters are intelligent; the dialogue is intelligent; and the multitude of imaginative details mentioned above is one beautifully conceived bit after another, most of them minor but adding up to a

richly textured milieu with a new, neat little particular on almost every page. The humor is sort of implicitly chucklesome rather than out and out jokey: the aliens are not cartoons but slyly inhuman, and the personal artificial intelligences that every character carries are generally wise-ass types, carrying on their own communications and culture off-stage.

David Drake and Thomas T. Thomas (don't tell me what the middle T. stands for; I'd rather remain in ignorance) have made a neo-space opera of a high order. If they keep it to this level, the series can remain open-ended indefinitely so far as I'm concerned.

Short Rib

Eve's Rib

By Bryn Chandler

Pageant, \$3.50 (paper)

Q.: Why is there a flying dragon-like creature on the cover of Bryn Chandler's *Eve's Rib* when there is no flying dragon-like creature in the text?

A.: Because these days dragon-like creatures on the cover are supposed to sell books, I guess.

Do you readers really buy a book mindlessly just because there's a dragon on it? Publishers think so.

Of course, the author cannot be held responsible for the cover in most cases, so, that mild complaint registered, let's move on to the story.

Mirabilé dictu, Chandler has a relatively fresh idea here. Not a big fresh idea, but even a partially

original theme in SF is so rare these days that *any* is worth noting. Earth of several centuries hence is in such bad shape that the population expends its final resources to spew seeds in every direction like a dying plant before winter. (I know, we've heard that one before, but stick with me.) One such seed—a plentifully supplied factory ship with a complement of adults and a large cargo of "exo-children," who can be brought to term outside the womb—finds a livable planet. But all but one of the crew/colonists are dead on landing, leaving only Evelyn Conner to start the colony.

Now where this differs from other such novels is that it's not a study of the struggle for survival. Things are pretty easy for Eve. Once she's found the right hydrocarbons, the food processor and other fabrication machinery turn out almost everything that's needed, while the biolab can cope with almost any medical emergency. And Eve has had life-extension treatments, so she has plenty of time. Even the vaguely humanoid natives, who seem primitive and intellectually limited, mind their own business.

Essentially, the novel is about one human being, given almost unlimited physical and intellectual (by computer) resources, trying to create a society. Four exo-children are "decanted" every six months, and are genetically engineered to mature rapidly. The population grows speedily, and the exos begin to have endos—and we follow Eve's

struggles as she attempts to manipulate an ethical society into being (with some judicious editing of the computer tapes) and to cope psychologically with being the physically youthful but lonely matriarch of that growing society.

The author isn't quite up to the epic theme. This is partially because it needs more length. We are shown the burgeoning society (and its own eventual colonies) at intervals. The beginning, concerning the growing young people, is absorbing, but after a point the whole picture becomes rather sketchy, and, to a degree, simplistic. There's one rotten apple among the original batch of exos who begins to taint the rest of the barrel and who seems only to exist to provide some sort of conflict for Eve. In the meantime, social and ethical problems, such as the treatment of the natives, keep cropping up; the natives, of course, are not what they seemed at first, and figure in a surprise ending which is perhaps more confusing than surprising. Despite the book's problems, however, it's better to have an author bite off more than can be chewed than endlessly chewing the same mouthful (how do I get into these disgusting metaphors?).

Future Formula

Molly Dear

By Stephen Fine

St. Martin's, \$18.95

A definite literary subgenre of the past hundred years has consisted of a host of "memoirs" sub-

titled "the autobiography of a . . ." Fill in any number of subspecies of humanity, and you will get an "expose" of the harrowing life of same. These exercises are usually fiction, despite the term autobiography, and range from excitingly revelatory to sleazily exploitative.

It is Stephen Fine's humorous conceit to extend this idea into the future, and reveal the harrowing life of an android: *Molly Dear: The Autobiography of an Android* is the title.

Fine has followed the formula to a T. Against the backdrop of an interplanetary future (colonies on Mars and a moviemaking capital on our satellite called Hollymoon) in which humanity is served by a host of robots and androids of varying grades of sophistication, our heroine tells her story, chockablock with amazing heights and depths, fantastic encounters, and more than a few astonishing coincidences.

Molly is an android model P9, whose major selling point is that all of "her" kind are governed, not by an interior device, but by a universal exterior governor located in a satellite. Unfortunately, the governor's program has been sabotaged by a member of the Androids Rights League, and at a certain point it gives all the P9s self-awareness.

Molly is one of the few who survives to tell her tale. And what a tale! She is a domestic (sexually exploited by her master), a nursemaid, a nun, a fugitive, a thief, an

airbus terminal hooker, a high-priced call girl. She becomes First Lady of Mars and the unwilling star of a Hollymoon holomovie based on her own life (called *Droid!*). And she becomes a mother, since P9s can interbreed with humans. She is impregnated first by the son of her original owner, which results in a "semi" (halfbreed) son, delivered by a vet. Later she is impregnated by her son (androids and semis mature rapidly) which results in a (grand)daughter.

She's the central figure in a murder trial which will be a precedent-setter for android rights (with the built-in problem that it's her guilt which will establish self-determination for the race).

If there's a space shuttle hijacking, Molly is bound to be aboard. If there's a raid on a stop on the underground skyway (an escape route for fugitive androids), Molly's bound to be there. If there's a pregnant encounter, it's bound to be with one of Molly's old friends, enemies, or "relatives."

Trouble is, despite the author's inventiveness, Molly's story goes on too long. The tortuous circumstances which result in the intricate coincidences are wearisome, and the trial seems to last forever. The reader ceases to care whether Molly will escape the planned obsolescence which is the fate of her kind.

At one point in her narrative, Molly voices the hope that a P9 will edit her manuscript. Maybe that's what was needed.

Private Eye Bug Eye

Deep Quarry

By John E. Stith

Berkley, \$3.50 (paper)

I let a couple of John Stith's SF mysteries go by without checking them out, and therefore came in a little late in the series with *Deep Quarry*. Sorry. *Mea culpa* and all that. If I'd been a little faster off the mark, I could have turned you on to a good thing earlier, judging from this one at least.

Despite some classic examples that spring immediately to mind, the two genres have usually been uncomfortable with each other. As I've pointed out before, science fiction holds the reader with continuing startling revelations, while mysteries work in just the opposite way, presenting puzzles until a final revelation.

There is the subgenre that's essentially the *scientific* mystery, in which the riddle is not criminal in nature, and the solution lies in figuring out (through physics, biology, sociology, or whatever) why the alien people, places, or things behave as they do. Stith cleverly uses this and the classic detective story, and while the two elements are more overlapped than interlocked, the result is still a lot of fun.

Stith's detective, "Bug Eye" Takerent (so called because he works well with aliens), has set up shop on Tankur, a habitable day-side, night-side world, and it all begins with a fairly routine private-eye case concerning artifacts from a

nearby archeological dig which have been showing up on the private market. Bug Eye's investigations occasion a murder which he thinks he is responsible for. It is ruled as justifiable, and in fact seems to solve the case, but with the unerring instinct of the private eye, he refuses to regard it as closed.

So far, this basically could be a present-day detective story based on any archeological site, but Stith keeps it science-fictionally interesting with advanced gadgetry for security and communications, and the details of life on Tankur. (At his location, it's continually early afternoon—on a hot day.)

His cover on the site has been that of a freelance puzzle solver and code breaker, and almost by accident, he comes through with a major discovery. A nearby butte is a disguise for a huge artifact, an enormous building. He, the inevitable gorgeous female archeologist, and various others manage to penetrate its walls, and get stuck inside. They are menaced by various mechanical and biological inhabitants, and here the scientific mystery comes into play. What is this place? And how can they get out? Here the fun is the thrills and surprises of exploring an alien environment with incomprehensible booby traps at every turn.

The solutions to the two riddle factors are separate, but more or less resolved simultaneously. The glue that holds them together is Bug Eye's charm and humor; he manages to keep up the traditional

private dick stream of cracks without coming across as a hopeless wise ass.

Shea When

The Complete Compleat Enchanter

By L. Sprague de Camp & Fletcher Pratt

Baen, \$4.50 (paper)

Around once a decade I find myself explaining the complicated history of the classic Harold Shea stories by L. Sprague de Camp and Fletcher Pratt, when they are republished in yet another permutation. And yes, we have another go-round, as one can tell from the title, *The Complete Compleat Enchanter*.

So, here we go again for the benefit of a whole new generation. The five stories (novelette-length, for the most part) were published from 1940 to 1954 in various magazines (beginning with the great *Unknown*, which could almost be defined in genre by these stories). The first two were published in book form as *The Incomplete Enchanter* (1942). The third was published in book form as *The Castle of Iron* (1950). Numbers 4 and 5 appeared as *Wall of Serpents* in 1960. There were various paperback editions of these.

Then, in 1975, *The Incomplete Enchanter* and *The Castle of Iron* were published together in one volume as *The Compleat Enchanter*, which caused some rumblings from purists (like moi). The distinguished editor responsible for this

edition answered my particular rumblings by pointing out that "compleat" (as in *Angler*) could mean "accomplished, skilled." Okay, I'll buy that—sort of.

Confusion was compounded when the missing two (formerly published as *Wall of Serpents*) were published as *The Enchanter Completed*. At this point, I'd guess that the surviving author, de Camp, wished they'd named the initial story something else.

Now, at last, we have all five stories together in one volume, for the first time to my knowledge—*The Complete Compleat Enchanter*, a logical enough title for those of us who know the history, but probably ultraconfusing otherwise.

Have you got all that?

Now, you may well ask, are they worth reading?

Indeed they are. Previous to the Shea stories, there may have been impeccably conceived alternate universes which used the differences to hilarious effect. (In point of fact, the first Leiber Gray Mouser story was published a year before the first Shea.) Now, of course, we're up to here in them (though one may question just how hilarious the current crop is). There may have been earlier stories in which magic was as rigid a discipline as science, and in which the distinction between the basics of fantasy and SF were beautifully blurred. (Travel between the universes here is accomplished with a "syllogis-mobile.")

But the Shea stories got it all

together to become the great originals of this subgenre. And to add to the fun, each story's alternate universe is based on a particular literary work or tradition—*The Faerie Queene*, Norse and Irish mythology, *Orlando Furioso*, and *The Kalevala*. They're an astonishing blend of slapstick and scholarship.

Shoptalk

The publishing brouhaha connected with the fiftieth anniversary of *The Hobbit* in this country has finally wound down; some of the results are worth noting. There was a fiftieth anniversary edition of *The Hobbit*, of course; a reproduction of that first edition that some of us found and treasured long before the cult had formed. It, however, adds a foreword by Tolkien's son, Christopher, including unpublished drawings by JRRT and to which the present writer was able to make a small contribution, an honor indeed. New covers were put on the paperback editions of *The Hobbit* and *The Lord of the Rings*; they are startlingly different from earlier ones. (Who can forget the comic book covers on the notorious Ace edition, or those on the first "authorized" paperbacks which looked as if they'd been done by a demented Navajo? And you wouldn't believe the atrocities that have appeared on French editions.) These new covers (by Michael Harring) are realism in the extreme. This works beautifully for the human, elven, and

dwarf characters depicted; all too often the (minimal) cuteness of Middle-Earth is emphasized at the expense of the reality which makes the works so powerful. But Herring, too, has failed with the hobbits; they are just too peculiar looking. Maybe picturing hobbits is a lost cause.

And there is *The Annotated Hobbit*, an oversized edition with annotations by Douglas A. Anderson. Now there are two sorts of people in the world—those who want to know what goes into the stew in detail, and those content to just eat it (having learned that it's wisest, in many cases, *not* to know). I'm

the type that doesn't want to know how the effects in *Star Wars* were accomplished; let me just watch them and be amazed. For the other sort, *The Annotated Hobbit* will be a feast indeed (Houghton Mifflin, \$24.95). Finally, there must be noted Vol. VI of "The History of Middle-Earth" by Christopher Tolkien. It is *The Return of the Shadow* (Part One of "The History of the Lord of the Rings") (Houghton Mifflin, \$19.95).

Books to be considered for review in this column should be submitted to Baird Searles, Suite 133, 380 Bleecker St., NY, NY 10014. ●





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SF CONVENTIONAL CALENDAR

by Erwin S. Strauss

The Spring con(vention) season builds towards its Memorial Day climax. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For a longer, later list, an explanation of cons, and a sample of SF folksongs, send me an SASE (addressed, stamped #10 [business] envelope) at Box 3343, Fairfax VA 22038. The hot line is (703) 823-3117. If a machine answers, leave your area code & number. I'll call back on my nickel. Early evening's usually a good time to call cons (most are home phones; be polite). When writing cons, enclose an SASE. Look for me at cons behind the Filthy Pierre badge, with a musical keyboard.

APRIL, 1989

21-23—AmigoCon. For info, write: Box 3177, El Paso TX 79923. Or call: (915) 542-0443 (10 am to 10 pm, not collect). Con will be held in: El Paso TX (if city omitted, same as in address), at the Sunland Park Holiday Inn. Guests will include: Melinda M. Snodgrass, artist Frank Kelly Freas.

21-23—Name That Con. (314) 773-6626, 724-0291, 946-9147. Stratford House, Fenton MO. V. Milan.

21-23—Nebula Weekend. (916) 424-0902. Penta Hotel, New York NY. 1989 meet around Nebula awards.

27-30—Nexus. (719) 472-3930. Air Force Academy, Colorado Springs CO. Science/SF connections.

28-30—Corflu. Normandy Inn Best Western, Minneapolis MN. For the fanzine fan (no media, etc.).

28-30—MarCon. (614) 475-0158 or 261-8240. Radisson Hotel, Columbus OH. Lots of music and fun.

28-30—Once Upon a Con. Holiday Inn, Denver CO. Larry Niven, D. L. Arneson. Role-playing games.

28-30—EclectiCon. (512) 447-5577. South Plaza Hotel, Austin TX. D. Harris, Sam Hurt, A. Mayhar.

28-30—RockCon, Box 45122, Little Rock AR 72214. Royale Vista Inn, Hot Springs AR. G. R. R. Martin.

MAY, 1989

5-7—MisCon, Box 9363, Missoula MT 59807. (406) 549-1435. Holiday Inn. V. McIntyre, Dan Reeder.

5-7—ConTraption, 1325 Key West, Troy MI 48084. Michigan Inn, Southfield MI. Somtow Sucharikul.

5-7—XCon, Box 7, Milwaukee WI 53201. (313) 741-4712. J. Vinge, V. Jo-nes, W. Tucker, J. Frenkel.

18-21—EuroCon, % Morganti, Viale A. Cappellini 14, Rimini 47037 (FO), Italy. Continental con.

19-21—Oasis, 3206 Caulfield, Apopka FL 32703. (407) 725-2383. Orlando FL. M. Resnick, R. Adams.

19-22—KeyCon, Box 3178, Winnipeg MB R3C 4E6. L. McM. Bujold, Harry Turtledove, R. J. Pasternak.

AUGUST, 1989

31-Sep. 4—NortheastCon 3, Box 46, MIT PO, Cambridge MA 02139. WorldCon in Boston. \$80 to 7/15.

AUGUST, 1990

23-27—ConFiction, % Box 1252, BGS, New York NY 10274. Hague, Holland. WorldCon. \$65 to 1/1/89.

30-Sep. 3—ConDiego, Box 15771, San Diego CA 92115. North American SF Con. \$55 to June 30 '89.

AUGUST, 1991

29-Sep. 2—ChiCon V, Box A3120, Chicago IL 60690. WorldCon. H. Clement, R. Powers. \$75 in '89.

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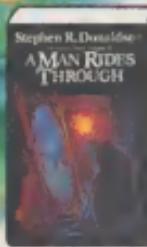
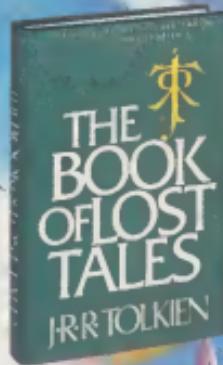
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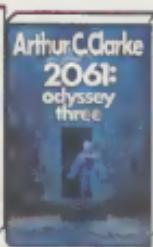
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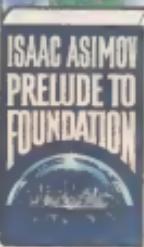
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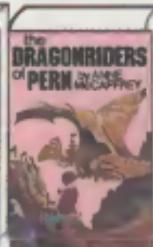
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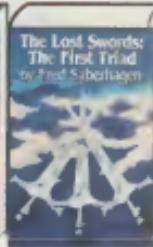
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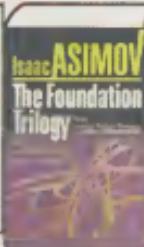
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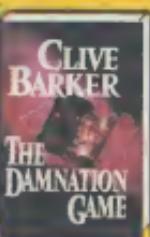
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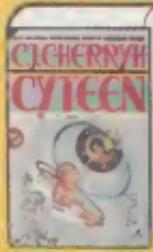
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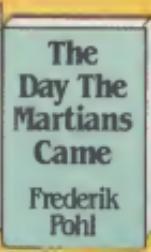
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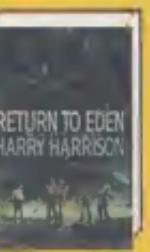
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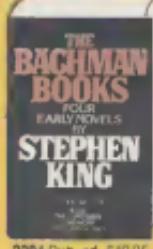
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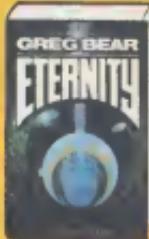
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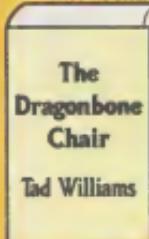
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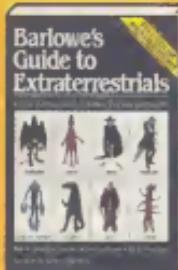


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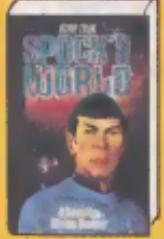
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